HOME SAFETY Review

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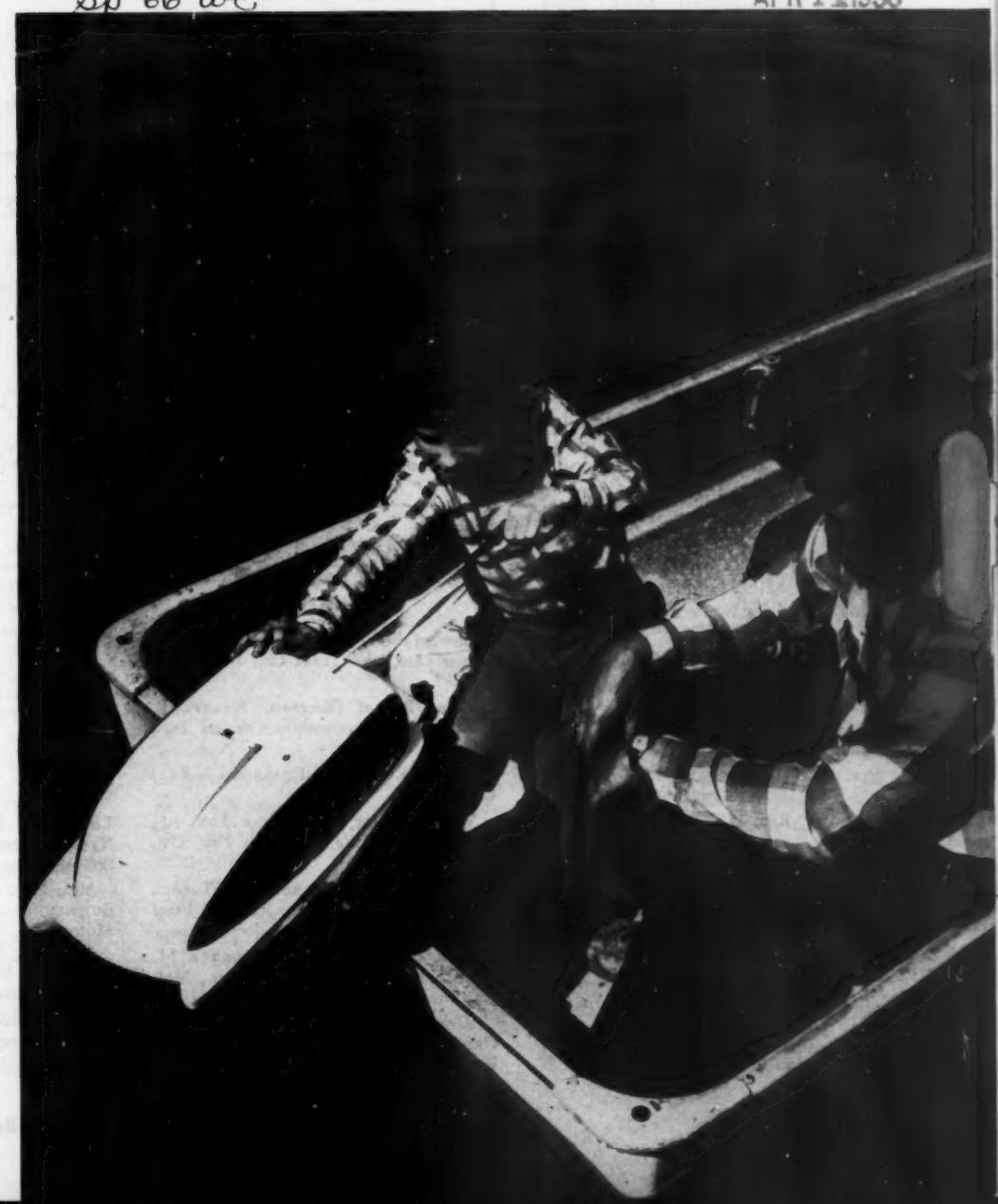
In this issue:

ARTICLES ABOUT WATER SAFETY CAMPAIGNS



"Before leaving the dock, be sure to look for other boats," this father warns as he instructs his son on how to start the motor.

—Johnson Motors

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The Home Safety Conference is the meeting point for representatives of national organizations conducting programs that include prevention of accidents in the home. It officially represents National Safety Council home safety service subscriber-members. Conference officers (with the exception of the staff secretary) serve voluntarily without pay as the Council's safety officers and planning board for home safety program.

National Safety Council
Chartered by the Congress of the United States

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A Magazine for Home Safety Program Leaders

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APRIL 1958

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How GOOD a job are we doing?

By Philip Dykstra

Senior Consultant
Home Safety Division
National Safety Council
Chicago, Ill.

TWO YEARS AGO the 1956 Home Safety Inventory attempted to answer one basic question: "Who's doing what in home safety?" This year, if it were possible to summarize the objective in one sentence, it would probably be: "How good a job *(of home accident prevention)* are we doing?" In order to obtain the answer to this question, different tools must naturally be used, new approaches developed, and additional contacts established. Since the 1958 Inventory will be much more evaluative in nature than were the previous ones, it is quite natural that changes will be necessary. We

trust that those who are responsible for home safety programming will find the 1958 Inventory an even more helpful tool than in previous years.

Once again, this year's Inventory will be administered through local Inventory centers on the community level. Selection and establishment of these centers will be made by the Home Safety Division of the National Safety Council and by state Inventory centers. However, a special group of "pilot cities" consisting of those communities having class A Chapters of the National Safety Council will be established for special analysis and evaluation purposes. These local centers will be responsible for the distribution, collection, and forwarding of the questionnaire forms for their particular locality.

This year separate forms for each type of organization will be developed, instead of the one form for all participants as was the case in 1956. Also, instead of attempting to query every individual local unit of a given organization concerning their home safety activities as in the '56 Inventory, this year the Inventory will request only the community headquarters office of an organization to report.

Thus each local Inventory center will receive *one* Inventory packet containing a specifically designed form for each of the following community agencies or organizations:

1 form for the local safety council;

1 form for the local health department;

1 form for the local fire department;

1 form for the local building inspector's office;

1 form for the local department of public instruction's office;

1 form for the local parochial edution office;

15-20 copies of a form, one copy of which is to be sent to the city office of *each* of the community's voluntary organizations;

10-12 copies of a form, one copy of which is to be sent to the city office of *each* of the communities' professional or trade associations;

10-15 copies of a form, one copy of which is to be sent to *each* of the leading businesses or industries in the city;

3-5 copies of a form, one copy of which is to be sent to *each* of the leading hospitals in the city.

Additional copies of any of these forms will be provided on request to the local Inventory centers.

Although space naturally does not permit reproduction here of each question on all the various forms, a general summary of the type of information to be requested of the various organizations and agencies may be of interest and assistance to the local Inventory centers and to the organizations they will be contacting.

Generally, the 1958 Home Safety Inventory will be attempting to ascertain from local *health departments:* (1) the organization of home safety activities within the department—whether integrated or specifically assigned to a separate division, (2) types of home safety activities conducted by the department, (3) home accident statistics maintained by the department, and (4) health department responsibility for housing, building, and nursing home codes.

City departments of public instruction will be asked to report on: (1) home safety items included in school curriculas, (2) instructional methods used, (3) other community organizations assisting schools in their home safety education, and

(to page 31)

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—Hiott Press

Will the boat tip over? Center the load to prevent a boat's overturning.

WATER SAFETY

A Community Undertaking

By J. Charles Judge

Chief
Home Accident Prevention Unit
Maryland Department of Health
Baltimore, Md.

THE NATURE AND extent of Maryland's water resources coupled with a mild climate foster year-round use and make drowning a year-round problem. The scope of the drownings makes them a community problem and a public health problem. The total drownings (all places) in Maryland over a five-year period was 684 of which 136 occurred in 1956.

Many people in Maryland work on or near the water; some live at shores; others spend vacations, weekends, and holidays at shore resorts or devote their leisure hours to such pursuits as bathing, fishing, crabbing, hunting, and skating. To a great number of residents these areas actually constitute their own "back yards." For these reasons, although only a small fraction of the drownings are classified as home accidents, the Home Accident Prevention Unit of the Maryland Department of Health has been considered the appropriate agency to cope with this problem.

The "weekend athlete," the novice boatman, and persons who do not know how to swim constitute most of the tragic drownings. Many of these people live in urban areas and have no knowledge of the lurking dangers of the rivers and bay. Intent upon seeking relief from the heat of the cities and seeking the pleasures of the seashore, they set forth for a day, weekend, or longer period without experience or skill. They often rent small watercraft such as canoes, rowboats, and outboards. Many a "captain" of a small craft believes if he can handle his own power mower or home power tool, he is automatically qualified to pilot a motorboat. Supplied with life preservers for the proper number of people to be carried, the "skipper" often cruises around a cove and picks up additional passengers, overloading the boat and endangering the lives of all aboard. The United States Coast Guard has recently strengthened its regulations in regard to boat inspections which should materially help the problem, especially among boats 16 feet or more in length.

There are comparatively few drownings in places where the beaches or waterfront areas are patrolled by lifeguards. By far the greatest percentage of the fatalities occur in rivers, creeks, and coves where there is no official protection and where the swimmer does not know the depth of the water nor realize what underwater obstructions exist.

After the Home Accident Prevention Unit was organized in 1953, plans were made for incorporating in the accident prevention program intensive water safety activities on a continuing basis. The unit was new, but the problem was not. Several community organizations already at work in this field were making progress. Efforts of the health department were consolidated with those of other agencies concerned. Combined efforts have simultaneously strengthened the program and lightened the burden.

The present regulations[1] governing public swimming pools and bathing beaches were adopted by the State Board of Health in 1951. The regulations state, "These regulations apply to all public swimming pools and natural bathing beaches, excluding those located in Baltimore City, used for a period of six days or longer and accommodating at any one time ten or more persons." (Baltimore City is not contained within any county and functions as a separate entity. The commissioner of the Baltimore City Health Department serves as a member of the State Board of Health. There is a close working relationship between

[1] "Regulations Governing Public Swimming Pools and Bathing Beaches," April 26, 1951, Maryland State Board of Health, Baltimore, Md.

the health departments of Baltimore City and the State.)

Enactment of necessary legislation and adoption of the abovementioned regulations made the health department responsible for inspecting and licensing of swimming pools and bathing beaches. The Division of Sanitary Engineering has been delegated to conduct these inspections, including approval of pool layouts, public buildings, drinking water, operating records, quality of water in the pool, and its disinfection. Any safety hazards are brought to the attention of the operator.

Health Department Integration

From its inception one of the objectives of the Accident Prevention Unit has been the integration of safety with established components in the public health program. With this purpose in mind arrangements were made with the sanitarians to distribute posters and other water safety literature as inspections were made and at the short course for swimming pool operators and managers which has been given at the University of Maryland each year since 1952. This course is an annual event jointly sponsored by the Maryland, Virginia, and District of Columbia health departments and the American Red Cross.

Sets of posters were obtained from the Baltimore Chapter of the American Red Cross. In cooperation with them the Home Accident Prevention Unit produced a booklet entitled *Water Safety* for general distribution. Thousands of these materials were sent to the counties for use in schools throughout the State. Additional material pertaining to boat handling supplemented the literature and posters. Supplies were provided to the Maryland League of Sportsmen, Maryland Tidewater Fisheries, military installations within the State, and other government and private organizations. There has been promotion to conduct vacation and water safety programs in all counties, particularly in those with resort areas.

Each year press releases have been prepared and circulated by the Home Accident Prevention Unit for publication in newspapers throughout the State and the *Monthly Bulletin* of the State Department of Health. This unit has compiled information for dissemination to interested organizations, publicity for the "Learn to Swim" programs of the Y.M.C.A. and the Red Cross as well as preparation of articles for *The Maryland Sportsman*[2] and the *Maryland Medical Journal*[3].

During 1955 and 1956 the Red Cross conducted nearly 1,500 "Learn to Swim" courses in Baltimore alone and held additional ones in nearby counties. These free classes were of two weeks duration and were given at numerous locations where facilities were available. By the end of each summer, certificates were presented to thousands of students who accomplished the goal of learning to swim. The Accident Prevention Unit of the State Department of Health supplied the Baltimore Chapter of the Red Cross with copies of the water safety pamphlet for those who completed the course.

Radio and Television Broadcasts

In 1955 various aspects of water safety were included in a series of television broadcasts over station WAAM on vacation safety which were initiated by the Home Accident Prevention Unit. The topics included the showing of films from the Aetna Insurance Group on artificial respiration, boating, canoeing, and swimming, and from the Outboard Boating Club of America on small boat handling. Through the cooperation of workers and volunteers from the Baltimore Chapter of the American Red Cross and rescue squads of county fire departments a demonstration of the Neilsen-Schafer method of artificial respiration was included in the series. A representative of the Home Accident Prevention Unit participated in an individual broadcast over WMAR-TV on general aspects of water safety.

In 1956 a member of the Home Accident Prevention Unit participated in a "Panel of the Week" discussion on water safety with representatives from the American Red Cross, the United States Coast Guard, and the Baltimore City Parks Service. The discussion was recorded for a radio broadcast and received wide coverage in the *Baltimore Sunday American* newspaper.

Coordination Within the Community

The Water Carnival sponsored by the Anne Arundel County Recreation Department was a specific project for 1957. This was a cooperative venture in the form of a 4-hour show held on a Saturday afternoon at a public beach. Again community and official organizations worked together to portray concepts of safety. The United States Navy demonstrated a sea-to-shore rescue by the use of a helicopter. A lifeline was dropped to a "ditched" member of their personnel who was floating in a rubber raft. The "victim" was raised into the body of the helicopter and taken to shore.

Unusual lifesaving and water safety demonstrations were given by the United States Coast Guard, the American Red Cross, and skin divers with SCUBA (self-contained underwater breathing apparatus). Other organizations gave demonstrations of water skiing and the safe use of small sailing craft. The Accident Prevention Unit, in conjunction with the Red Cross, erected an appropriate water safety exhibit and distributed educational material.

Drownings in Maryland have not manifested any consistent pattern nor any encouragingly downward trend. There may be no decrease in the near future. The organizations which have cooperated in this undertaking for water safety have included national, State, and local agencies, both official and voluntary; newspaper, radio, and television companies; other industrial concerns; and interested individuals. Efforts have been united and continuing. The persevering, concerted action for water safety by groups within the community offers a most favorable long-range outlook for a reduction of drownings in Maryland.

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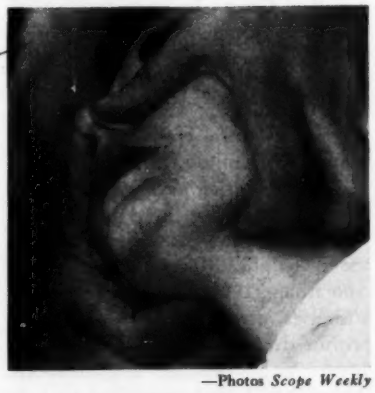
[2] *The Maryland Sportsman*, vol. 12, No. 7, p. 2, August 1954.
[3] *Maryland State Medical Journal*, vol 5, No. 7, p. 410, July 1956.

← Photos not rec'd.

First step in resuscitation is shown by Dr. Archer S. Gordon. Both hands are placed at angle of victim's jaw; he lifts upward from behind and beneath jaw.

Continuous moderate pressure is exerted over the subject's epigastric region by Dr. Gordon as the resuscitation technique is continued on young boy.



—Photos *Scope Weekly*

Top: Doctor's mouth approaches subject's mouth and nose. At center is over-all view of method, showing mouth-to-mouth position and pressure on epigastrium. Bottom: Dr. Gordon demonstrates technique on adult. Victim's nose is clamped off with the thumbs.

Red Cross Recommends A Resuscitation Method

By Chicago Bureau
World Wide Medical News Service

AN[1] ANCIENT METHOD of resuscitation, utilizing a mouth-to-mouth technique, has been recommended by the American Red Cross as the most effective method of ventilating infants and young children.

Studies were conducted by Dr. Archer S. Gordon at the University of Illinois Medical Center and Presbyterian Hospital, using all manual resuscitation methods on nine children and eight adults. The tidal volume of air in each case was measured by a special spirometer.

The mouth-to-mouth technique, the investigation showed, gave the highest volume of ventilation; push-pull methods were next in line of effectiveness. Manual rocking methods gave the least ventilation.

As described by Dr. Gordon, the steps followed are:

1. The victim is placed on his back.

2. The mouth and supralaryngeal passages are cleared of any obstructions.

3. The operator places both hands at the angle of the jaw and lifts upward from behind and beneath and then holds the jaw with one hand.

4. The other hand is placed over the epigastrium, and continuous moderate pressure is exerted.

5. The operator places his mouth over the child's mouth and nose. He blows in, removes his mouth,

[1]This article has been reprinted from "Sports & Medicine: Red Cross Recommends a Resuscitation Method as Old as the Sea for Sinking Swimmers," by the Chicago Bureau of the World Wide Medical News Service, *Scope Weekly*, vol. 2, No. 30, p. 15, July 24, 1957, published for the Upjohn Company, Kalamazoo, Mich., by Physicians News Service, Inc., New York, N. Y.

and blows again. The action is repeated rhythmically about 20 times per minute. To prevent alkalosis resulting from hyperventilation, the operator should take a deep breath about once a minute.

Any obstruction in the victim's air passages can be detected by the operator because of the mounting pressure of his own breath, according to Dr. Gordon. He can also detect ventilation by feeling the victim's lungs expand or by watching the chest rise and fall.

The technique varies slightly when administered to older children or adults. In these cases both hands are kept under the jaw to hold it in the forward position. The operator places his mouth over the victim's mouth or nose—preferably the former, the nose being clamped off by the two thumbs. Breath should be blown in about 12 times per minute.

The decision to recommend the technique was based on the findings of Dr. Gordon, Dr. James Elan, Dr. Peter Safar, and others.

N.S.C. Opposes Amateur Rocket Experimentation

THE COMMITTEE ON Structure and Programs (executive committee) of the Home Safety Conference unanimously endorsed February 25, 1958, in Chicago, Ill., a recent N.S.C. policy statement opposing amateur rocket experimentation. They also approved the publishing of the statement through the conference. The Home Safety Conference's committee, of which Fred Long, M.D., is chairman, is interested in the statement because some of the rocket experimentation has been done in backyards or basements of homes.

This statement, which was developed by the Chemical Section and approved by the Industrial Conference and the School and College Conference, is published in full below:

NATIONAL SAFETY COUNCIL POLICY ON AMATEUR ROCKET EXPERIMENTATION

POLICY

The National Safety Council opposes amateur experimentation with rockets and rocket fuels.

BASIS

A number of injuries and fatalities have resulted from amateur experimentation with fuels and rockets —in some cases involving unqualified supervisors of such projects.

Few chemists or physicists are qualified to carry on such experiments or to supervise them, since the science of rocketry requires very specialized knowledge and training.

Firing of rockets, except on approved test ranges, endangers not only the participants, but the general public as well.

These devices and fuels are extremely dangerous, even in the hands of highly qualified scientists, working under the strictest of controlled conditions. Serious injuries and fatalities have occurred even among these groups in the course of their assigned duties.

IMPLEMENTATION

Most of the states, and many municipalities, have enacted legislation which outlaws the manufacture, sale, and firing of fireworks by unlicensed persons. Since rockets and rocket fuels, in their preparation and in the quantity required, are infinitely more lethal, the National Safety Council calls upon parents, teachers, and responsible public officials to ban their use by amateurs, *immediately*.

The determination of the science curriculum is a task to be entrusted to the science teachers of the Nation and the recommendations of their professional organizations. The council urges that the real hazards of amateur rocketry be weighed by the responsible school officials in designing science curricula.

In adopting its policy, the National Safety Council does not imply that it is opposed to the encouragement of the study of the chemistry, physics, and mathematics of rocketry by the youth of the Nation. On the contrary, the council would strongly urge that opportunity to study these fields, including the safety principles, be accelerated and strengthened so that more and more students will be ready to enter into studies in the higher realms of these sciences, thus preparing themselves for *true* scientific experimentation in the problems of space. The council believes that in this way our youth can make its most significant contribution to its country.

ON THE CALENDAR

May 5, 6, 7, 1958; Allentown, Bethelehem, Easton, Pa.

31st Annual Eastern Pennsylvania Safety Conf. Contact: Harold A. Seward, Lehigh Valley Safety Council, 602 East Third Street, Bethlehem, Pa.

Sept. 18-19, 1958; Rockland, Maine.

31st Annual Maine State Safety Conf. Contact: Arthur F. Minchin, dir., Ind. Safety Div., Maine Dept. of Labor and Industry, Augusta, Maine.

Oct. 20-24, 1958; Chicago, Ill.

46th Nat. Safety Cong. & Exposition. Contact: R. L. Forney, secy., N.S.C., 425 North Michigan Avenue, Chicago, Ill.

COMMUNITY

Fire Prevention Planning

By E. W. Fowler

Director
Codes and Standards
National Board of Fire Underwriters
New York, N. Y.

THE[1] WORK OF the National Board of Fire Underwriters fits right into the theme of this session as many of its activities, such as fire protection surveys of cities, building codes, and fire prevention codes, are directed to the community approach to fire prevention.[2]

These surveys deal specifically with the problem of community fire prevention and the ability to cope with serious fires and conflagrations. In most of the conflagrations which have involved primarily residential areas, wood shingle roofs on closely built dwellings of combustible construction have been the important factor in fire spread. Other types of conflagrations, such as those which started from hazardous occupancies or large buildings with combustible interior construction, usually have developed into conflagrations because of inadequate public fire protection, that is, inadequate fire departments, water supply, and other features for effective fire fighting.

Three large forest or brush fires known as the Malibu fires occurred nearly simultaneously in December 1956 in Southern California in or near Los Angeles County. In these fires 90 homes were destroyed and some others severely damaged out of an estimated 1,550 or more homes in the area burned. Effective work on the part of the local county fire departments was largely responsible for keeping the loss of homes down to about 6 percent. Fighting conflagrations is definitely a community function.

The possibility of fire loss to a home from a fire in the home or other building next door is also a community fire prevention problem. The community approach to problems of this type matches closely the approach made in the fire protection engineering surveys of cities made by the underwriters. These are made by the National Board of Fire Underwriters in the larger cities and by local fire insurance inspection bureaus in the smaller communities.

These surveys and the reports made from them include a detailed study, with recommendations, on all items related to public fire protection. These studies cover the adequacy and reliability of the water supply system—the various features, such as manpower, equipment and methods of operation, and the adequacy and reliability of the community fire alarm system, making for the effectiveness of the fire department. They also provide a detailed analysis of the size, type, congestion, and fire hazard of buildings in the community and of the effectiveness of building and fire prevention codes in controlling fire hazards—all with particular relation to the likelihood of conflagrations and other serious fires of the kind which spread from building to building.

A local building code is an important element in the community approach to home fire prevention both from the standpoint of its effect on the prevention of conflagrations and other fires which spread from the building of origin to adjoining buildings and of the spread of fire in the house itself.

Many features of a building code relate to control of fire spread in business, commercial and industrial buildings, and apartment houses; other features deal with fire prevention in dwelling houses. Some of the important features of a building code that relate to the control generally of fire spread in buildings are the following:

1. The code should establish fire limits or zones in which wood frame construction and unprotected metal construction will be prohibited, with minor exceptions. This must be done in order that the likelihood of serious, spreading fire involving many buildings may be reduced in congested business districts of cities.

2. Heights of buildings must be limited in relation principally to the type of construction. The important features to consider are safety to life of occupants and also the fact that any building of such height that the fire department cannot fight a fire effectively in upper stories from the street level must have floors and other structural members that will resist any ordinary fire in the building without collapsing.

3. Areas of buildings must be restricted both in relation to type of construction and occupancy, with consideration also being given to sprinkler protection and height and separation from other buildings. The

[1] "Community Fire Prevention Planning" was presented by Mr. Fowler at a Symposium entitled "We're Burning Up" at a Home Safety Session of the 45th National Safety Congress, October 23, 1957, in Chicago, Ill.

[2] A film, "These Are the Facts," was shown to illustrate these activities.

larger the area of a building the greater the difficulty of fighting a fire in it and the greater the likelihood of a serious fire's involving other nearby buildings.

4. Exterior wall openings which expose or are exposed by other nearby buildings must have suitable protection such as wired glass in metal frames. Such protection is essential to provide a fire department with the opportunity to stop fire from spreading from building to building.

5. Stair, elevator, and other openings to floors of buildings are very important elements in fire spread if they are not properly protected. This is particularly important from the standpoint of safety to the life of the occupants.

6. Fire walls dividing buildings and exterior walls of buildings, to be effective in controlling the spread of fire from building to building, need to have sufficient structural stability under fire conditions as well as fire resistance. Openings in fire walls must be provided with standard fire door protection, or the walls may not serve their purpose.

The important features of a building code which are related to fire prevention in the individual dwelling house are roof coverings, fire stopping, chimneys and heating appliances and systems, and proper installation of electric wiring and equipment.

Roof Coverings

The combustibility of roof coverings needs to be regulated to provide reasonable control of fires spreading from flying brands landing on roofs. Flying brands from fires in buildings of combustible construction or combustible storage have frequently started many roof fires. In a recent case in a large midwestern city the burning of a 4-story building started some 70 other building fires from flying brands which arose from the burning building and landed on other buildings up to about a mile away. It is good building code practice to limit roof coverings on dwellings to those which are class C or better under the Underwriters' Laboratories' classification of roof coverings. This class is effective against light fire exposure and possesses no flying brand hazard.

Wood floors and walls and furred masonry walls present an opportunity for fire to spread on combustible material in concealed spaces. If proper fire stopping is not installed in such spaces, it may be expected that a fire starting in any concealed portion will spread throughout the building before being detected. In such cases there is little possibility of extinguishing the fire before extensive damage is done.

I recall a house on our street where an oil burner fire in the basement occurred a few years ago. By the time the local fire department arrived the fire had spread up through the unfirestopped stud spaces in the exterior walls and smoke was coming out around the eaves. The fire department had such difficulty in locating and extinguishing all the fire in the concealed stud spaces that the building was in effect a complete loss. After the fire, it was torn down and a new house erected in its place because of the extensive damage, even though from the exterior it seemed to be damaged very little. Suitable fire stopping as called for by a good building code would have kept the fire in the basement until the fire department arrived and could extinguish it.

Among the most important causes of dwelling house fires are chimneys, flues and vents, and heating appliances and systems. A properly enforced building code properly covering such items is a very effective means of controlling this fire hazard.

Masonry chimneys should be built of solid masonry units, and wood beams, headers, joists, and studs should be properly spaced from the chimney. Factory-built chimneys and special types of gas vents need to be installed strictly in accordance with manufacturers' instructions and within the limits of their approval. Heating appliances and systems need to have proper safety controls and be installed with proper clearances from combustible material.

Communities usually control installation of electric wiring through enforcement of the National Electrical Code, either by a separate electric inspection department or by an electric inspector working in the building department. It is not only important that electric wiring be installed in a standard manner, but that sufficient electric outlets be installed to avoid overloading the circuits by too many appliances on one outlet. In older dwellings this is an important item which should be taken care of by proper extensions to the house wiring system.

Building Codes

There are at present several widely used model building codes. The National Board of Fire Underwriters has published a recommended building code since 1905. The latest edition is the 1955 Golden Anniversary Edition. An abbreviated form of the code is also available for communities whose needs can be cared for by a shorter code.

The National Building Code recommended by the National Board of Fire Underwriters is the product of many years experience in building code writing and enforcement—experience with hundreds of adoptions and the experience of specialists in all branches of fire protection and building construction.

On items which may properly vary with local conditions from a standard intended for use nationwide, the code sets its provisions at such a point as to be appropriate for adoption in any area of the country, that is, at approximately the minimum for the needs of any part of the country. Those sections of the country which have special conditions such as heavy snowfall, exceptionally high winds, or earthquakes are expected to increase the requirements according to the local needs.

Approximately 1,000 cities and towns have adopted our recommended code or have a building code based largely on some edition of this code.

In more recent years several building officials' organizations have

not needed.

Fires like this could be prevented if building codes were heeded.

produced and fostered adoption of model building codes which they have prepared. The three model codes of building officials' organizations that are complete codes are much superior in regulating building construction from the standpoint of proper control of fire hazards to the average old, locally prepared code. These model codes, however, have some substandard features in their fire safety provisions.

Fire Prevention Codes

A local fire prevention code may appear to have less relationship to the prevention of fire loss in a dwelling than the building code, but fire prevention codes do nevertheless have an important relationship to fire safety in dwellings. The provision of a fire prevention code which specifies safeguards for oil burning equipment has a direct relationship to fire prevention in dwellings where fuel oil is used.

Other important provisions of a fire prevention code such as those dealing with storage and handling of gasoline and other highly flammable liquids and the storage and handling of explosives and hazardous chemicals are important to fire safety of individual dwellings because serious fires or explosions from these products in any part of the community may have a serious effect upon some dwelling houses. These fire and explosion hazards occur not only at locations where these products are regularly handled but also occur in connection with transportation of these products along streets of the community.

The National Board of Fire Underwriters has been a pioneer in the preparation of model codes to aid communities in fulfilling their responsibilities in fire prevention. In 1895 the National Board published the first nationally recommended electric code, in 1905 the first model building code, and in 1930 the first model fire prevention code.

Zoning regulations are not often thought of as community efforts in the direction of home fire prevention, but they often do play a significant part. Zoning regulations often require separation of dwellings from lot lines as well as the limiting of heights of buildings in certain cases. The separation between dwellings produced by such regulations is very helpful to a fire department in keeping a dwelling fire from communicating to the next buiding.

Conclusion

An effective community fire prevention program cannot be accomplished without the active support of people who live in the community. You have here seen and heard about services of the National Board of Fire Underwriters which are available to your community as an aid to such accomplishment. We urge you to do your part to bring about effective community fire prevention in your community. You will thereby be working for fire prevention in your own home as well as in your neighbor's.

THIS SCRIPT WAS *produced in 1955 by the WGAR Broadcasting Company, Cleveland, Ohio, and the Ohio State Safety Council, Columbus, Ohio. H. G. J. Hays, executive secretary, Ohio State Safety Council, has stated that this is one of a series of scripts the anecdotes for which were derived from a number of sources, among them newspapers and the annual Freak Squeak story of the National Safety Council.*

TOO WIDE— But Not Wide Enough

VOICE: "So Help Me; It's the Truth!"

ANNOUNCER: Station _____ and the Ohio State Safety Council present "So Help Me * * *" a 5-minute program featuring the Voice of Safety as he tells us some of the freak squeaks, the crazy goings-on as your fellow citizens get themselves involved in accidents. This evening, for instance, the Voice of Safety tells us about a little boy who made faces at his sister and was literally "caught in the act."

VOICE: "So Help Me; It's the Truth!"

Mickey Holloway had been told many times that he'd better stop making those horrible faces or his face might freeze that way. But Mickey wouldn't listen; he had to learn the hard way. One day he was especially pleased at his fascinating ability to upset his older sister by making faces. The faces were even more satisfactory, Mickey discovered, when they were framed between the bars of the banister in his home. I guess you know the rest. His head got caught between the bars. The fire department was called into the case after homemade rescue efforts failed. After considerable effort the firemen got Mickey free. All in all, it was pretty tough punishment for a 3-year-old. Even his sister felt sorry for him—a little.

My grandmother used to say that it was too bad that small boys didn't have long whiskers like a cat. She maintained that a cat's whiskers warned him when a space was too small to get his head out of it. She figured, of course, that such feelers might keep small boys like Mickey from getting their heads into tight places. It's a good point, because accidents like Mickey's are happening all the time. Every day somewhere in this fair land a youngster will get stuck, head first. Cribs, porch railings, stepladders have to be pried, sawed, or chiselled away from some child's neck. You can bet on one thing. Sure as can be, if a head can be forced into an opening, sooner or later some kid's curiosity will get his head into trouble.

Mickey Holloway was fortunate. The bars of his banister ran up and down rather than crosswise. Quite a few children have been badly bruised or choked as they struggled to free their heads from between a couple of horizontal bars. Bars on cribs and playpens should run up and down for this reason, also so they don't afford a foothold for climbing. And another point is that a chin can't be hung up on such bars to strangle the child. Spacing is important, too. The bars should be close enough together to prevent a small head from entering. Three inches is small enough to keep practically every tiny head where it belongs. Or you can go to the other extreme and make the bars so wide apart that the head can be easily withdrawn. About an 8-inch spacing is right for this.

If a child does get stuck, there are a couple of good rules to follow. First, pick him up and support him so that his weight won't produce a neck injury or interfere with his breathing. After that you, and a helper, can take your time freeing him. He'll be scared, of course. Wouldn't you? But, if you approach it this way, he'll be in little danger. For goodness sake don't, in your own fear and anxiety, try to pull him out by force. The bars should be sprung apart so that his head won't touch as he's pulled through. If you don't have the proper tools to cut the bars, call the trusty fire department.

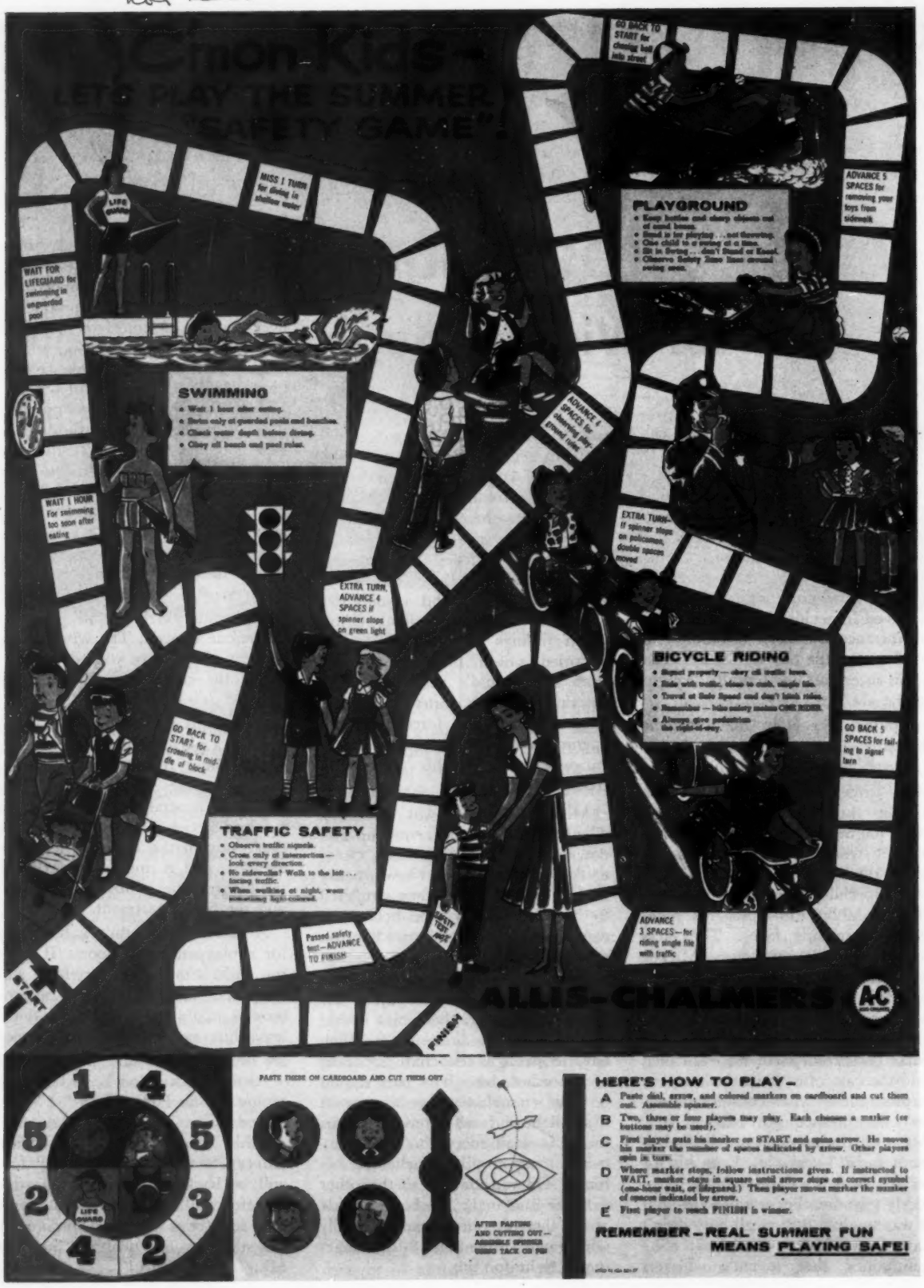
And your job isn't finished when the rescue is over. The wisest thing you can do is have your doctor examine the child to see whether he suffered any head injury.

When this type of accident happens in a playpen or crib, it usually comes about from efforts to reach things outside the playpen. You might get around this by putting up a fabric screen to hide the toys that don't stay in the crib. At least it's an idea, and it might save a lot of trouble for the youngster, yourself, and the fire department.

A fabric screen isn't a bad idea for a playpen out-of-doors. It gives the child some protection from sun and wind. A small child can be sunburned easily at this season; don't leave him exposed where he cannot get into shade.

ANNOUNCER: You have been listening to "So Help Me * * *" presented by _____ each _____ at this time for the Ohio State Safety Council. The Voice of Safety will be back again next week with the story of another freak accident and some tips on how you and I can stay alive and healthy. "So Help Me; It's the Truth!"

not need.


Action-Kids
LET'S PLAY THE SUMMER "SAFETY GAME"!
GO BACK TO START for chasing ball into street
MISS 1 TURN for diving in shallow water
ADVANCE 5 SPACES for removing your toys from sidewalk
PLAYGROUND
• Keep bottles and sharp objects out of sand boxes.
• Sand is for playing . . . not throwing.
• One child to a swing at a time.
• Sit in Swing . . . don't Stand or Kneel.
• Observe Safety Zone lines around swing area.
WAIT FOR LIFEGUARD for swimming in unguarded pool
SWIMMING
• Wait 1 hour after eating.
• Swim only at guarded pools and beaches.
• Check water depth before diving.
• Obey all beach and pool rules.
ADVANCE 4 SPACES for observing playground rules
WAIT 1 HOUR For swimming too soon after eating
EXTRA TURN If spinner stops on policeman, double spaces moved
EXTRA TURN ADVANCE 4 SPACES if spinner stops on green light
BICYCLE RIDING
• Respect property — obey all traffic laws.
• Ride with traffic, close to curb, single file.
• Travel at Safe Speed and don't hitch rides.
• Remember — bike safety makes ONE RIDER.
• Always give pedestrian the right-of-way.
GO BACK 5 SPACES for failing to signal turn
GO BACK TO START for crossing in middle of block
TRAFFIC SAFETY
• Observe traffic signals.
• Cross only at intersection — look every direction.
• No sidewalks? Walk to the left . . . facing traffic.
• When walking at night, wear something light-colored.
Passed safety test — ADVANCE TO FINISH
ADVANCE 3 SPACES — for riding single file with traffic
ALLIS-CHALMERS
START
FINISH
1 4 5 5 2 3 4 2
PASTE THESE ON CARDBOARD AND CUT THEM OUT
AFTER PASTING AND CUTTING OUT — ASSEMBLE SPINNER USING TACK OR PIN
HERE'S HOW TO PLAY —
A Paste dial, arrow, and colored markers on cardboard and cut them out. Assemble spinner.
B Two, three or four players may play. Each chooses a marker (or buttons may be used).
C First player puts his marker on START and spins arrow. He moves his marker the number of spaces indicated by arrow. Other players spin in turn.
D Where marker stops, follow instructions given. If instructed to WAIT, marker stays in square until arrow stops on correct symbol (one-hour wait, or lifeguard.) Then player moves marker the number of spaces indicated by arrow.
E First player to reach FINISH is winner.
REMEMBER — REAL SUMMER FUN MEANS PLAYING SAFE!

← A CHILD SAFETY GAME

THE GAME ON the opposite page was a four-color ad published in the public interest by Allis-Chalmers Mfg. Co., Milwaukee, Wis., in cooperation with the Milwaukee Safety Commission and run in newspapers in the cities where the company's plants are located.

Encourage Safe Play

By Mrs. Ethel L. Garrison

Education Assistant
Home Accident Prevention Unit
Maryland Department of Health
Baltimore, Md.

WE[1] KNOW THE IMPORTANCE of play and how much of his time a child spends playing. It follows that many child accidents occur at play, so we have considered safety for him in his home environment and his play environment. We must give thought also to the aspects of his playthings that involve safety and the practices at play which will help to keep him safe. No one wishes to curtail all his activities or to instill fear and timidity. We want him to learn what is dangerous, to develop prudence and the habit of controlling impulses so that he will become self-reliant and able to perform acts safely and expertly.

Select Suitable Toys

Toys and equipment for children of all ages abound in such variety and quantity as to be confusing. Suitable toys thoughtfully selected according to the growth factors and requirements of the individual child are most beneficial and appropriate. They achieve usefulness both through bringing pleasure to the child and by aiding in his development.

Dolls and cuddle toys are prized companions to small children, but, when these are for the infant, they must be durable, washable, and of such shape, size, and weight that he can handle them easily. They should be without small parts that can come off and be swallowed, and no infant's toys should have sharp corners or rough edges. Bright colors appeal to small children, but it is necessary to make sure the paint is harmless. Small children will chew or suck on paint, and paints containing lead cause lead poisoning.

The child, when he learns to walk, likes to use his new skills with push and pull toys. Those he pulls are best fitted with a short rope or string instead of a stick or metal handle. The flexible material lessens the possibility of his being hurt when he falls, will not cause him or others to trip as would a handle left down, nor will it be apt to poke him as when the handle is left up. The best kind of push toys are doll carriages and truck or fire engine types —large enough for him to shove or straddle. The little trains and cars he can push around can't pinch fingers and are better for this age than toys with springs or those which must be wound.

First Aid for Choking

Teach your child not to run with anything in his mouth. Even the firm, rolled paper "sticks" now used for all-day-suckers can injure him. If he is not satisfied to sit down with his lollipop, the candy should be cut off the stick when given to him. If he should fall backward and if anything in his mouth goes into his throat, quickly pick him up by the ankles and slap his back to dislodge the object. (This method is not only for choking babies, but may work for people of any age.) Remember that choking can be fatal in a matter of a few minutes. Call a doctor immediately.

Picture books for small children should be of linen as any paper he tears may go into his mouth. (Young children are inclined to poke small objects into ears and up nostrils, too.) To satisfy the temptation to tear up things he may be given old magazines or catalogues, but stay with him to be sure of what happens to the pieces. At this stage, if crayons are given to him, he may eat them, too; colored pencils are a better choice. The big ones used by carpenters will be easiest for him to manage. For sand and water, wooden pails are better than metal ones; a plastic scoop or a wooden mixing spoon is safer than a tin shovel. The "sandbox set" needs to be protected from too much sun, taught not to throw sand, and especially warned about playmates' eyes. The sandbox should be kept free of debris and covered at night to keep out dogs or cats.

Let Him Climb

Do not prohibit your child from climbing as this helps to develop his big muscles and gives him a feeling of achievement. When he begins to climb, provide him with the means and teach the rudiments for climbing safely and knowing where it is safe to climb. He should learn to get a good footing and a proper handhold. Large, hollow blocks for piling and sturdy boxes of graduated

[1] "Encourage Safe Play" is the fourth article of a series entitled "Safety for Children" released by the Maryland Department of Health in 1957. The department, according to J. Charles Judge, chief, Home Accident Prevention Unit, has made copies of this series of articles available to all county health departments and the public health nurses in Maryland.

sizes might be a preliminary to the jungle gym with well-spaced bars. In regard to tree climbing, the child must learn to avoid the branches that won't hold his weight. Point out to him that only a bird may perch safely on the littlest branches and that expert climbers—cats and squirrels—observe precautions.

It is necessary to assure that play equipment is safe and that children learn to use safe practices regarding it. Seesaws, swings, and other equipment have to be checked periodically. The rope on a swing should be changed *before* it breaks! Sliding boards should be kept free from splinters or roughness, steps and braces kept firm. Place metal slides in the shade. Crawling or running up the slide, or sliding down backward should not be allowed. Children should not be permitted to stand up or kneel on swings, nor to jump from a swing in motion. The height of the swing should be in proportion to that of the user. Explain to your child that he must stand far enough away from a swing or a seesaw not to be bumped when it is in use. He should also stay behind the archer in archery or anyone swinging a bat or an axe. Teach your child what to do if his ball stays up on the roof, rolls into the water, or across the street.

Children like to play with ropes. They want to tie up the "bad men." Is anything more tragic than the news stories of the child hangmen who were only acting out a cowboy story? Make your child realize that hanging is *not for fun*. He should never tie a rope around anyone's neck nor permit anyone to tie a rope around his own neck. Also, children must never go off and leave anyone tied, handcuffed, or locked up.

Learn to Listen

It might seem that most children need no encouragement to talk, but parents should make it a practice to listen to what the child has to say. His conversation gives many clues to his development, his associates, and his needs. It presents us with an invaluable aid for his guidance in all areas. Associates are not appropriate playmates who encourage your boy or girl to "hide it so your father won't see" or "don't tell your mother."

As the child's circle of playmates widens, there are more lessons for him to learn. From school age on he will play in larger groups. Group games involve much running and strenuous exercise. The child must realize that, although he may look for the ball in the sky, he must remember as he runs that his feet are on the ground. It is still possible to stumble in holes, trip over a tree root or a rock, or to run into objects. When children fight, as they will, they should *first* drop whatever objects they may be holding. The damage from fists is of short duration as compared to that from sticks or baseball bats.

Educate your child to assume his responsibility for safety. Teach him care in handling pocket knives, darts, arrows, and toy guns. He must learn that the safety of others may depend on his consideration. While there is nothing wrong about throwing a rock into a brook, there is nothing right about throwing a rock at another child or at a car or bus with people in it. Caution against dashing in the house or on the stairs, against tripping, or unnecessary shoving or pushing. His keeping on the alert for older people not only shows courtesy but also may help to protect them from falls that are too often fatal.

When playing with such things as sticks or beebee guns the child must learn to protect the eyes of himself and other children. Emphasize that he should be especially careful not to rub his eye if something gets into it and to report any injuries immediately. The speed with which injuries are reported is sometimes a factor in saving a life.

Teach your child the folly of taking "dares" and the difference between "daring" and courage so that he will neither take "dares" himself nor cause injury or death of another by "daring" him to try dangerous acts. If he learns, as a child, never to play tricks that might cause an accident, he will not become one of the too numerous adults who cause accidents by horseplay.

Childhood is a reckless age—adventuresome, experimental, inquisitive. At first you may decide that thoughts of safety will not appeal to excitement-loving youngsters. They readily grasp the idea that even the most skillful are at a disadvantage if they fail to protect themselves in potentially dangerous situations and that a person must be truly smart to recognize and evaluate risks. To prevent accidents the individual must anticipate and prepare for hazards, acquire skill in overcoming them, and possess *wisdom and judgment* to avoid them.

Lightweight Bat

not recd.

THANKS TO A new lightweight bat, (see illustration), the fun of baseball can now be safely enjoyed by millions of youngsters not allowed to use heavy wooden bats, according to the manufacturer. Molded of tough, yet resilient polyethylene, it is called the Safe-T-Bat. At the worst, a child who happens to get hit by the new bat feels only a sharp sting. Even small tots can reportedly swing the Safe-T-Bat with ease. It is 30 inches long and weighs 8 ounces, about one-third the weight of wooden bats the same size.—Cosom Industries (creators of Safe-T-Play Products), 6012 Wayzata Blvd., Minneapolis 16, Minn.

NUMBER OF DEATHS FROM SPECIFIED SPORTS ACCIDENTS

According to Activity of Person. Ages 10-64 Years
Industrial Policyholders, Metropolitan Life Insurance Company,* 1953-55

Type of Activity	Number of Deaths		Type of Activity	Number of Deaths	
	Both Sexes	Males		Both Sexes	Males
Total	809	747	Hunting	90	89
Water sports	380	343	Firearm accidents	71	70
Swimming	249	224	Drowning	19	19
Wading or playing in water	85	73	Boat accidents	16	16
Diving from piers, banks, springboards, etc.	40	40	Other than boat accidents	3	3
Sports diving	4	4	Target shooting	8	8
Water skiing	2	2	Ice skating	8	7
Boating	148	130	Football	5	5
Motor or rowboat	128	110	Climbing high cliffs, mountains, etc.	5	4
Canoe	11	11	Horseback riding	4	3
Raft	6	6	Baseball	3	3
Sailboat	3	3	Basketball	2	2
Fishing	153	150	Boxing	1	1
Boat accidents	99	96	Golf	1	1
Drowning (excluding boat) and others	54	54	Ice boating	1	1

*Exclusive of the Pacific Coast States and Canada.
Note: These figures exclude injuries sustained by military personnel or in professional sports.

FATAL INJURIES IN SPORTS

THE[1] LOSS OF life from accidental injuries sustained in sports is greater than is generally realized. Among Metropolitan Life Insurance Company Industrial policyholders, aged 10-64 years, there were more than 800 deaths in sports during the three years 1953-55. Males comprised 92 percent of the victims, reflecting the fact that many more males than females engage in sports, particularly the more hazardous ones, and that males are much more often willing to expose themselves to danger.

The table * * * shows the number of insured lives reported lost in various sports during the three-year period under review. The variations in death toll arise for the most part from differences in the number of participants in the individual sports and are not to be interpreted as measuring the comparative hazards associated with the various activities.

Water sports accounted for nearly half the deaths in this study. Of the 380 drownings in such recreational activities, 249 were due to swimming, 85 to wading or playing in the water, and 40 to diving. The remaining few fatalities resulted from sports which have become popular in recent years—diving with oxygen tanks and masks, and water skiing behind speed boats. Details available from the death claim records indicate that many of those who drowned were either poor swimmers or nonswimmers, or expert swimmers who attempted distances beyond their ability. Placing too much reliance on inflated tire tubes was a factor in several of the drownings. Nearly two thirds of all the water sports victims were in the age group 10-19 years.

Pleasure boating was responsible for close to a fifth of the deaths in sports. Accidents of this type involved mainly motor-driven craft or rowboats, but canoeing, playing on rafts, and sailing also contributed to the total. Although weather conditions were a factor in some of the accidents, most of the boating mishaps were caused by occupants shifting positions, by overloading, and other dangerous practices.

Fishing accounted for a slightly higher death toll than pleasure boating; of the 153 victims, all but three were males. Virtually all the fatal fishing accidents were drownings, which occurred under a variety of circumstances: while the victim was out on a boat, when he slipped into the water or inadvertently stepped from shallow to deeper areas, or when he fell into the water from banks, bridges, or other high places. All age groups suffered a goodly number of deaths, reflecting the popularity of fishing.

As would be expected, the large majority of the 90 lives lost in hunting accidents resulted from firearm injuries. The most common causes of such injuries were walking into the line of fire, mistaking a hunter for game, and the faulty handling of weapons. An appreciable number of hunters were drowned, either while using boats or while wading along river banks.

Every sport has its hazards. There were eight fatalities in target shooting, all among boys. A like number of persons lost their lives because they skated on ice too thin to bear their weight. Such diverse sports as football, baseball, horsebackriding, and mountain climbing also claimed their toll of life.

[1]This article has been reprinted from the *Statistical Bulletin*, vol. 38, pp. 8-10, April 1957, published by the Metropolitan Life Insurance Company, New York, N. Y.

DROWNING..

WHAT'S BEING DO

WHAT'S BEING DONE about drowning? Various organizations are attempting to prevent drowning by publishing for parents and individuals information on safe practices, and so forth. Among the organizations conducting water safety campaigns are the Memphis-Shelby County Safety Council, the American National Red Cross, and the Maryland Department of Health. Reproduced on these pages are portions of some of their materials.

In Memphis, Tenn.

Eugene D. Glaze, executive director, Memphis-Shelby County Safety Council, Memphis, Tenn., has stated concerning their 1957 campaign, "The Safety Council, working closely with Red Cross, the Y's, Scout groups, and camps, has been able to keep drownings below previous years. Demonstrations and news releases in addition to bulletins provided the public with safety 'know how.' "

A "drop-in," *Drownings Can Be Prevented by You,* produced by the council, was distributed to council members and selected day camps during the summer. Another publication, Special Interests Bulletin No. 4, *Drownings,* was distributed to all council members. Portions of this bulletin were reproduced in daily and weekly newspapers in the area. Some of the information was used by radio and television stations.

The council also concentrated on drowning during the hunting season. Another "drop-in," *Hunter's Check List,* was given to all persons launching boats at the Memphis Park Commission Boat Ramp at McKellar Lake, Memphis' recreational waterfront. The check list was distributed by John Coll, waterfront director, and his staff from 2:30 a.m. on through the day, beginning with the opening day of duck season and continuing for several weeks. Special Interests Bulletin No. 10, *Hunting Accidents,* was issued in the hope of reducing small craft hunting accidents as well as gun accidents. Mr. Glaze has stated, "We are pleased that no lives were lost during the period and no close calls occurred in the council's area of responsibility."

In Maryland

The Home Accident Prevention Unit of the Maryland Department of Health has published a leaflet, *Water Safety,* which was prepared in cooperation with the Baltimore Chapter, American Red Cross, and was sent by the health department to counties for use in the schools.

The Home Accident Prevention Unit of the Maryland Department of Health also obtained sets of posters

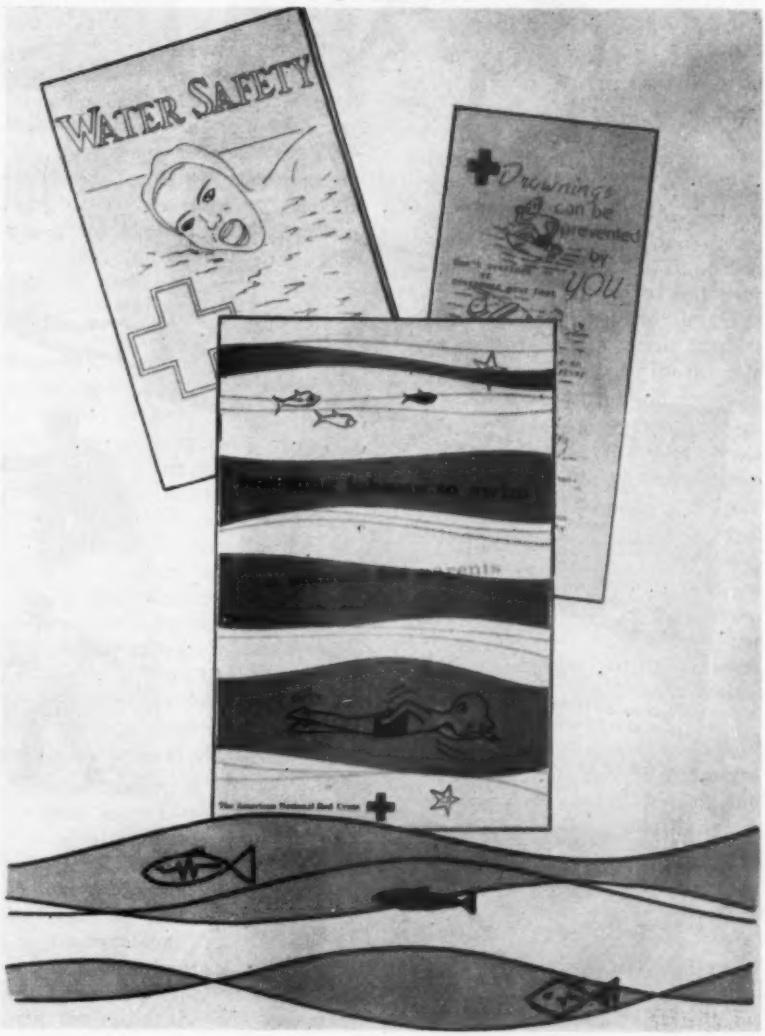
G ONE ABOUT IT ?

from the Baltimore Chapter of the American Red Cross to send with the booklets and supplemented this with material on boat handling. These materials were sent not only to the schools but also to various government and private organizations within the State. (A fuller story of the Maryland drowning prevention program appears elsewhere in this issue.)

By the Red Cross

The American National Red Cross has developed a booklet to aid parents in teaching children to swim. In an effort to make people safe while in, on, or about the water, the Red Cross, according to Alfred W. Cantwell, national director, Safety Services, has conducted a comprehensive water safety program since 1914. Certificated classes are held in most communities throughout the United States and provide training from the beginner level to that of instructor. In these more than 40 years of experience, Red Cross has discovered that a child must be about 9 years old to respond well to group instruction. Yet the number of trained water safety instructors could not possibly handle the millions of younger children wanting instruction on an individual basis.

To meet this problem, the Red Cross has devised a plan whereby



parents or other adult family members can teach their children elementary swimming techniques. The publication of a new booklet, *Teaching Johnny to Swim,* whereby almost any interested adult can instruct a child in the fundamentals of water safety, was the result of this plan. Further information about this booklet may be obtained from local Red Cross chapters.

YOU CAN HELP YOURSELF
even if you are a weak swimmer!
UNSAFE
SAFE
THEN IF THE BOAT SHOULD FILL UP—
YOU CAN HELP
even if you can't swim
If a bather steps into deep water off shore
1. Wade to chest depth
2. Incline body toward shore
3. Grasp back of wrist
4. Backing slowly, draw victim to safety
OR
1. Shove board, plank, or similar floating object into victim's grasp
2. Get help to bring victim to safety
UNSAFE
SAFE
Don't overload a canoe
Limit the load
Kneel for paddling
IF YOU DO UPSET, USE YOUR CANOE AS A LIFE PRESERVER
YOU CAN HELP
even if you can't swim
When a bather is in trouble near a dock, float, or side of pool
1. Extend upper part of body over water
2. Grasp wrist of victim
3. Slowly draw victim to safety
OR
1. Extend a board, plank, branch, or pole to victim
2. Draw victim to safety
OR
1. Stand on one end of a rope
2. Throw body beyond victim, using an underhand swing
3. Draw body into victim's grasp, pull slowly to safety

Above are four pages from the American National Red Cross booklet *Teaching Johnny to Swim.* The line drawing on page 16 is also from this booklet.

Off-the-Job Accidents Hurt Industry, Too

By J. L. Ridinger
Director
Safety and Plant Protection
Indiana Harbor Works
Inland Steel Co.
East Chicago, Ind.

DURING[1] THE YEAR 1956, 80,700 people were interred in cemeteries throughout the United States because of nonwork accidents. If these accidental deaths continue at the current rate for 1957, the undertakers, the grave diggers, the tombstone people, the florists, and the cemetery associations can say they have had another successful year.

Have we become so calloused to accidents that we are no longer impressed with the seriousness of this humane and economic problem? Are the medias of communications such as the press, radio, and television "missing the boat" to the extent that the general public has accepted unnecessary off-the-job accidents as a part of modern-day living? I have taken issue with the press and radio on several occasions for their gory and belittling manner of presenting accident stories to the general public. I have been told the public is more interested in spectacular bad news than in constructive good news. How many times have you been disappointed in finding safety articles relating to industrial or civic safety accomplishments relegated to the back pages of section 2 of your local newspaper?

Perhaps the press and radio people are right when they say the public is more interested in reading about bad news than good news. If this is true, then it becomes an important part of our job to change public opinion relative to off-the-job accidents. How can this be done? First there must be a common understanding as to the need for safe practices and conditions on the streets and highways, in the home, and in other public endeavors. Second, the public must demonstrate their desire for traffic safety, home safety, and public safety by complying with regulations and by cooperating with the various law-enforcement agencies.

My experience with various public endeavors, whether they be political, civic, or social, is that the average person feels he is too busy to take an active part in these affairs because he is more concerned with utilizing more and more of his time for personal enjoyment. Also I believe most people are naturally lazy, both mentally and physically, whenever it comes to joining a worthwhile crusade that may interfere with their personal plans.

I also believe, if we are to be successful in our campaign against off-the-job accidents, we must form the type of crusade that will shake the average person from his complacency. At present this crusade is in the formation stage. Its nucleus consists of the mourners of the dead, the National Safety Council, the press, the radio, the TV, manufacturers, business people, and civic and political groups.

Our main objective is to get this safety crusade on the road. To do this job effectively we must have more than casual support from sponsoring groups and the public.

Bob Gidel in his *National Safety News* article, "The Challenging Decade," provided some very important information: Population in the age groups 45 years and over will increase during the next ten years because of the small families during the early 30's. In the age group 25 to 44 years it will decrease.

"If our economy continues to expand at recent rates, the gross national product must increase more than 40 per cent, with the per capita share of this product to increase some 25 per cent," Mr. Gidel said.

"These figures all boil down to the fact that our productive population will be decreasing while our non-productive population and overall demand for goods and services are increasing."

Bob Gidel said that to keep pace with this situation we must conserve our manpower, upgrade its skill, and increase individual productivity.

Perhaps I can best illustrate the effect of off-the-job accidents upon industrial productivity by citing a few case examples.

Case No. 1.—A steel mill roller with 40 years of experience was involved in a minor accident with his

[1]This talk, "Off-the-Job Accidents Hurt Industry Too," was presented October 24, 1957, by Mr. Ridinger at a symposium "Industrial Approaches to Home Safety" at a Home Safety Session of the 45th National Safety Congress in Chicago, Ill.

car. The bumper of his car and another became locked. In an attempt to free his car he sustained a severe back injury and lost 2 months from work. As a roller, his knowledge, training, and experience is invaluable. Because of this accident it was necessary to upgrade different crew members and break-in a new man to fill the crew. In spite of close supervision there was a daily loss of production. This accident was costly to the injured and his family in terms of lost wages, to the crew in terms of a reduction in tonnage bonus, to the employer in the loss of production. Customers were dissatisfied because of delayed shipments.

Case No. 2.—Elmer was a farmer when he was not running an open-hearth, hot-metal crane. On November 10, 1956, during a long weekend off, Elmer went over to his neighbor's farm to give him a hand harvesting corn. Everything had gone well until Elmer started around the corn elevator. This being a late autumn day and bitter cold, the frost was hard on the ground. At a point just inches from the coupling of the unguarded drive shaft, Elmer slipped, and his leg skidded against the rotating shaft. Quickly his trouser wound itself around the shaft, and his trapped leg became a pulpy mass of flesh. His worried wife had to be driven on a tractor to a neighbor's farm where she phoned the plant and reported her husband off for an indefinite period.

This accident has changed Elmer's way of life. Off and on he spent over two months in the hospital. Hemorrhaging was a constant threat. For 5 months he had to have his leg in an elevated position. This meant he had to sit or lie down most of the time. For an active man this in itself was almost unbearable. Pleasures were foregone; his work left unattended; Christmas came and went, and the expenses of living had to be met. Approximately 5 months later Elmer was ready to return to modified work, but the final summary of what he lost has not yet been tallied.

Elmer lost $2,500 in wages, aside from an estimated $2,000 cost-of-living expense. Although some of this expense was compensated by insurance, Elmer has this to say on the score, "Any fella who thinks that insurance takes care of everything is crazy."

Since the accident Elmer saw fit to sell his 60-acre farm, for he couldn't take care of it. Farming had been a lucrative sideline for him. He estimates he took in $1,500 annually from his farm and that this year alone he could have had an additional $1,000 from his wheat crop.

Elmer's accident also caused a chain reaction at the plant. As soon as notification of Elmer's accident was received, the general crane foreman had the relief craneman transferred over to run Elmer's crane on a permanent basis. Although Elmer's replacement had been well trained in the proper operation of hot-metal cranes, it is an established fact that additional time and experience is required before he would become as proficient as he should be when assigned to a single crane. Accident exposure is certain to be greater during such periods.

The relief craneman, in turn, had to be replaced by a crane operator learner. The problem faced by this man is a magnification of what the relief craneman had to undergo. Then another employee had to be placed as a crane operator learner. This chain reaction of operational changes created problems that had to be overcome by everyone from the lowest hooker to top departmental supervision.

Fortunately Elmer had little difficulty upon returning to work. After the operational changes were reversed, Elmer had to adapt himself and his injured leg to his old job. Now he has to be extra careful not to bump the leg because to this day he fears hemorrhages, and his leg still swells every day. Elmer has learned, as has industry, that off-the-job injuries hurt industry too.

* * * * *

These are but a few of our off-the-job case records. Others involve supervisors, clerical workers, and a variety of skilled craftsmen.

Most of the men and women involved in off-the-job accidents are parents of children who rely upon them for a livelihood. Others have parents or relatives who are dependent upon them for support. Although more than 90 percent of our employees are covered by off-the-job insurance, we cannot expect insurance to replace the worker's wages for an indefinite period of time. Then, when insurance payments run out, various types of tax-supported welfare aid begin. All of us are becoming more concerned about our tax bills. Industry, which pays the greatest share of the country's tax, is also greatly concerned.

I am sure all of you will agree that the public should be interested in accident prevention work because it is a noteworthy endeavor when you can prevent the pain and suffering that follow accidents and at the same time eliminate the need for public charity.

Whether your business requires the services of one or a thousand workers, accidents hurt industry too. Workers are a part of the assets of any business, and, whenever a worker is fatally or seriously injured on or off-the-job, both the worker and business suffer an economic loss.

Although much credit must be given the National Safety Council, local safety councils, civic groups, and law-enforcement agencies for reducing off-the-job accidents, I do not believe our crusade against accidents will be successful until all business and industrial groups take an active part in off-the-job accident prevention work.

During the past 3 years the Inland Steel Company has spent considerable time and money trying to make our workers more safety conscious about off-the-job accidents. We have used the following programs with a favorable degree of success:

Traffic Safety

1. Inland Safe Drivers Club.—Membership in the club is voluntary. Workers are solicited by their foremen at safety meetings. Those that sign a safe drivers pledge are given a reflectorized bumper sticker for

their cars. This is a continuous campaign with us.

2. Safety Seat Belts.—In addition to the equipment of all company cars and trucks with seat belts, our employees can purchase seat belts and have them properly installed at a reduced rate. Personally I believe that seat belts should be considered standard equipment on all cars and highway trucks. During the past year you have had the opportunity to read many articles on the pros and cons of seat belts. Seat belts should not be considered as a panacea for all automobile accidents. Like safety glass, tires, and highway railguards their use can only help to minimize injuries.

3. Safety Car Checks.—During the past 2 years we have cooperated with the local police by checking all company cars and trucks. In addition we have set up check lanes to check all cars driving in the plant.

4. Education Program.—(a) Traffic safety films are shown at group safety meetings. (b) We publicize and post pictures of local highway accidents, furnished to us by the Indiana State Police. (c) Our employees are kept abreast of traffic safety activities in the state by information we receive from the Indiana Traffic Safety Foundation. (d) Facts and figures published in the National Safety Council's *Traffic Safety* magazine are used extensively.

Home and Public Safety

1. Home Inspections.—At intervals our safety engineers inspect the homes of our employees for unsafe acts and unsafe conditions. Pictures are taken and safety stories are published in the plant newspaper. These inspections are made at the request of our employees.

2. Cartoon Contests.—Safety cartoons showing unsafe conditions and unsafe acts in the home and on city streets are published in the plant newspaper. Wives of employees who submit a list of unsafe acts and unsafe conditions found in the cartoons are eligible to compete in a turkey drawing contest.

3. First Aid Training.—Each year more than 10 percent of our employees are trained in the fundamentals of first aid. We have on record many instances where our employees have saved the lives of members of their families and friends because of their knowledge of first aid. This year we expect more than forty plant teams will compete in our Annual First Aid Meet.

4. Safety Eyeglass Program.—Employees who must wear prescription glasses are encouraged to purchase safety glasses. The company pays for part of the cost. With safety glasses the worker is safer in his car, at home, on the golf course, and while participating in other sports and activities.

On-the-Job and Off-the-Job Injury Statistics

For the past 2 years we have publicized throughout the plant on-the-job and off-the-job injury statistics. This is done once a month. Figures for the first 8 months of 1957 are as follows:

Plant disabling injuries—54; fatalities—0.

Off-the-job injuries—144; fatalities—13.

We are aware of the fact that our employees spend more time away from work than on the job, but this is no justification for people to have more injuries at home, on the streets and highways, or while on vacation and weekend pleasure trips.

There are several reasons why workers should be safer on-the-job than off-the-job, even though exposure to injury is greater on-the-job than off-the-job because:

1. Industry, whenever possible, selects the proper type of person for the job;

2. Workers are trained to develop and use safe work habits;

3. The employer's machines and equipment are equipped with approved safeguards;

4. Workers who willfully disregard safety regulations are subject to disciplinary action;

5. Last, but most important, employers know that accident prevention programs cannot be successful without a continuous campaign to improve the worker's attitude toward his own safety and that of his coworkers.

Over the years industry has made tremendous progress in the scientific field. This has resulted in fewer accidents, increased productivity, pushbutton control operations and better working conditions.

Many of the new technological devices such as automatic switches, safety interlocks, electric eyes, and television and radar controls are being used to prevent accidents and injuries to workers.

We still have not reached the pushbutton stage insofar as using it as a positive control for human behavior. Human failure is still responsible for 85 percent of the industrial injuries. However, the total number of industrial injuries has been considerably reduced because of our accident awareness program. We believe that because of this continuous program to prevent injuries anywhere, we have helped to make our worker's homes and communities a safer place in which to live.

Many of the safety control measures used in industry can be used to control off-the-job accidents if properly applied.

Education is most important. There must be a common understanding of what is right and what is wrong by all agencies such as schools, churches, and civic, social, and political groups.

There must be leadership and cooperation. Every person must assume his proportionate share of responsibility for his own safety and for that of his family.

The National Safety Council and the American Society of Safety Engineers are well qualified to provide leadership on a nationwide basis, but each community can be best served by its own local safety council in cooperation with the National Safety Council.

Our big job is to stimulate an awareness within people to want safe homes and safe highways and other public places. Until people develop this awareness, they will continue to destroy themselves and others—at home and on the highways and in other public places.

This is an adaptation of a paper presented at the 23rd Annual Philadelphia Regional Safety and Fire Conference held in March 1957.

Philadelphia Gets Started

By Emil A. Tiboni

Chief
Housing Hygiene and
Accident Prevention Section
Division of Air Pollution Control
and Environmental Sanitation
Philadelphia Department of Public Health
Philadelphia, Pa.

AS THE AGENCY concerned with the total health of the entire community, the Philadelphia Department of Health recognizes accidents as one of our most serious public health problems. Let me sketch briefly for you something of the size and shape of this problem. This is what we see from analysis of mortality data as available from the latest year on which we have complete reports.

In 1955, accidents (with a total of 1,188 fatalities) were the fourth leading cause of death in Philadelphia.

Accidents were the *leading* cause of death from age 1 to 24 inclusive and were the second cause of death from age 25 to 44. In the latter age group the primary cause of death was heart disease which took only 38 more lives than accidents (363 lives as compared to 325 accidental deaths).

Thus, except for infancy, accidents are either the leading cause of death or are exceeded only slightly by heart disease up to the age of 44.

While the distribution of the relative importance between home accidents and other types is obviously not equal throughout life, accidents in the home account for somewhat more than half of the accidental deaths over the total life span. Home accidents are of greater relative importance in the years of early childhood while other accidents increase in relative importance as the outward orientation of the individual expands. The pattern is reversed in the late years when home accidents become the outstanding type for age 65 and over.

An indication of the relative importance of home accidents as compared with other types in Philadelphia may be gathered by first comparing the number of deaths from home accidents and motor vehicle accidents in 1955.

The seriousness of the motor vehicle accident problem has been widely publicized, but home accident deaths occurred more than twice as frequently as did deaths from motor vehicle accidents. The exact figures in 1955 were 597 home accident deaths and 277 motor vehicle accident deaths of Philadelphia residents.

Public accidents, other than motor vehicle, accounted for 110 deaths and occupational accidents for 44 deaths in 1955. The location of the accident in another 44 deaths was not stated.

It is interesting in passing to note that occupational accidents which receive great attention from so many sources now represent only one accidental death in every 27.

The usual leader among the major causes of home accident deaths was found in first position in Philadelphia. Falls accounted for 369, or 62 percent of the home accident deaths in Philadelphia in 1955 and were concentrated in the age group of 65 years and over.

Obstruction or suffocation by food was next in numerical importance but was far lower than falls with a total of 70 cases. Burns and conflagrations constituted the third group with a total of 60 cases. Poisonings, with 56 deaths were close to burns and suffocations in frequency.

Since they are not reportable, we are lacking data regarding the incidence of nonfatal accidents. However we can use the generally accepted ratio of 150 disabling injuries to each home accident death as an over-all relationship.

On this basis there were more than 89,000 *disabling* home accidents in Philadelphia in 1955.

Although there is no authoritative basis to determine the relationship between the number of nondisabling home accidents and those which disable, it has been suggested that there are approximately 100 to 150 nondisabling accidents for every one which disables. If this is the case, there were on the order of 9 to 13 million minor home accidents in Philadelphia in 1955.

With this sort of picture before us, what did we decide to do?

First we recognized that this was a problem which could be dealt with effectively only by utilizing all available resources. Accordingly, we began within our own department by creating a committee composed of representatives of each of the various divisions in order to obtain an inventory of our own resources and to pool the thinking of the various disciplines. We feel that this principle is sound and look forward to its application in broader coordinated efforts in the community.

Following the committee deliberations there was prepared a comprehensive outline of a program for the prevention of home accidents in Philadelphia. There was also established in the department an Accident Prevention Unit which serves as the focal point of planning and development and the coordinator of action in this program.

We recognized immediately that the mortality data reviewed previously were not sufficient to serve as guides to a comprehensive program. The first major step was the development of a questionnaire and procedures for a study of accidental injuries of all types in two of our health districts.

This study is now going on; hence no analyzed data are available from the study as yet, but we expect to have the rates of all types of accidental injuries broken down by class as motor vehicle, other vehicle, home, public, occupational, and place not stated. We are also obtaining detailed information about the nature

and circumstances of each home accident injury encountered. We expect this survey to serve as our chief source of information in developing our future program in home accident prevention.

We have begun generalized education on the problem of home accidents by use of an exhibit presented jointly with the state health department. This exhibit has been shown at such major locations as the Philadelphia Health Fair and the Home Show. We expect to display it, and other exhibits, at various strategic locations in the city. We have also distributed a substantial number of general home safety checklists and other materials. We expect to intensify and expand our generalized education, primarily as a means of stimulating broad public awareness of the problem.

Specific action has also been initiated to control accidental poisonings, most of which occur in the home. Our first step, following a report of a special advisory committee, was to establish a Poison Information Center to provide information to physicians, hospitals, and lay persons on the composition and recommended treatment of toxic compounds. It also gives first aid advice to lay persons and assists in getting them under professional treatment if needed.

We have also developed several educational pieces on accidental poisoning, lead poisoning, and the availability of the emergency information service and plan extensive distribution of these through various channels.

We feel that research is needed in this area of accident prevention and expect to begin home visit followup of each poisoning case shortly. These visits will serve as educational opportunities and provide data for research purposes as well as the development of other preventive measures. Because we are also aware of the need for a great deal of research in the broader areas of home and other accident prevention activities, we plan to do our part in this research.

Looking ahead, we see our program developing along several lines. One is the expansion of general accident prevention education in the community at large. This we see as a general supporting layer underlying more specific efforts.

Along with general education, we expect to localize our efforts in various pilot areas. Here we plan to use community organization to develop comprehensive utilization of the various tools available. These tools will include removal or improvement of environmental hazards as a result of voluntary or legally enforced action and, insofar as possible, efforts to reduce hazards resulting from human error or physical or mental inadequacy. Underlying all of these efforts will be concentrated education to create better understanding of environmental hazards and personal limitations and means of correcting them or adjusting to them. We also see the possibility of specialized programs aimed at specific hazards such as our poison control program.

Basically, our concept of accident prevention centers around the recognition that accidents always involve the individual and that in most cases he interacts with his environment. Therefore, we must proceed from within that individual outward to deal with the total complex of himself and the environment within which he lives. Thus we need to be concerned with his surroundings, which in this case involve all aspects of his home as it exists under varying conditions. Similarly, we need to be concerned with his whole self, both mentally and physically, under whatever stresses or limitations he may be functioning.

We think that the environmental link is the easier one to break and will probably give somewhat greater immediate attention to it than the more difficult one composed of the human factors.

It goes without saying that the long range implications of our concept are large indeed and that they will require extensive and protracted efforts. This does not discourage us. We feel that the importance of the task is great and that we can accomplish it only by correspondingly great effort. It is for this reason that we feel so acutely the necessity that the home accident prevention program for Philadelphia be a *community* program where every person plays a part and where every resource is used.

PLAN HOME SAFETY SESSIONS

The Structure and Program Committee of the Home Safety Conference agreed at a meeting in Chicago, Ill., on February 25, 1958, upon plans for the home safety sessions at the 46th National Safety Congress this coming October.

A general session will again be held on Monday evening of Congress week (October 20-24, 1958). As in other years this program will be of broad, general interest, with, it is hoped, spectacular treatment. The subject of home fire prevention was chosen as appealing to most groups.

Other general sessions are scheduled for Tuesday morning, Wednesday morning and afternoon, and Thursday morning. This last session will be a joint session with the Women's Activities groups.

Additional invitations to membership on the conference are to be issued to some 30 organizations which should bring the roster up to full, authorized strength, as a result of the approval of a report from the Committee on Membership by the Structure and Program Committee. The latter committee also heard and approved a report from the Home Safety Inventory Committee. (For further information about the Inventory see page 3.)

The Structure and Program Committee (which acts as the executive committee of the conference) also agreed to be represented on the School and College Conference's committee to determine the relationship of voluntary safety agencies to the school safety education program.

The Home Safety Conference's committee approved the recent National Safety Council policy statement against amateur rocket experimentation (see page 7).

CHILD SAFETY—

Whose Responsibility?

By Mark Kenyon, Ph.D.
Director
Preventive Crippling Program
Delaware State Board of Health
Dover, Del.

REMARKABLE PROGRESS has been made in decreasing childhood fatalities from tuberculosis, pneumonia, appendicitis, communicable diseases, and diarrhea and enteritis. As a consequence, accidents have become the leading cause of death among children who are more than 1 year of age. For example, in 1957, according to the experience of the Metropolitan with its Industrial policyholders, the accident rate among children from 1 to 4 years of age was 29.9 per 100,000 as compared to 13.7 per 100,000 for pneumonia, the second leading cause of death.

It is significant that in this age group 1 to 4 the reduction in the death rate from accidents has been less than one-half since 1930, although the death rate from disease has been cut by about four-fifths. For some diseases there are specific preventive measures or cures, but against accidents our only "immunization" is intensive education of parents and others.

FAMILY AND COMMUNITY PROBLEMS

Accidents have multiple and varied causes, and their prevention involves many factors. The prevention of accidents is rightfully a phase of public health education because accidents seriously affect the well-being of the entire community. Not only parents and families, but also all those interested in the health and welfare of their community should assist in accident prevention—child study groups, PTA's, civic clubs, women's clubs, and fraternal organizations. Among other organizations which are concerned with this problem are social agencies; city departments of health, education, police, and fire; housing authorities; chambers of commerce; automobile clubs; and of course safety councils.

In the long run, however, the prevention of childhood accidents is largely the responsibility of those individuals and groups who come into direct contact with children. The opportunity of correcting the accident hazards which are the greatest single menace to the lives of our children today is a challenge directed to you.

THE CAUSE OF ACCIDENTS

Accidents have causes and cures, just like diseases. The two outstanding causes of accidents are unsafe conditions and unsafe practices. The remedies for certain unsafe conditions definitely fall within the scope of parents or other adults in charge of the health and welfare of the family. Some of the unsafe conditions upon which we can at least improve are stairs without railings and adequate lighting, unanchored scatter rugs, or overly polished floors, exposed electric sockets, and frayed wiring.

In studies covering more than 1,500 fatal injuries children 1 to 4 years of age, the first cause was found to be motor vehicle accidents. In many cases the children strayed from their play, suddenly ran into the street to get a ball, or slipped away from the adult in charge in a moment of inattention. Of course, too, some of these motor vehicle accidents were caused by collision while riding in a car, and others were caused by children falling out of a car.

Let us turn our attention to the home, for it is here that we adults can perhaps do our best work in decreasing these fatal and unnecessary accidents to children. In the study of childhood fatalities mentioned, burns and conflagrations were the second largest cause of death. More than one-half of the children losing their lives in accidents of this type were trapped in burning buildings. A large number of the children were fatally burned by upsetting hot liquids over themselves or falling into them. Playing with matches or playing with or near flammable liquids also caused accidents. Fatalities have occurred when children played with or restarted outdoor fires for burning leaves and refuse.

Falls—out of windows, from porches and steps, and even falls out of bed—are another important cause of fatalities among children.

Deaths from swallowing poisonous solids or liquids, or foreign objects, are still other significant groups of accidents. Gas poisoning, injury from playing with firearms, and shocks from electric current also cause a number of fatalities.

PREVENTING ACCIDENTS

All adults having responsibility for young children have within their power the ability and duty to correct the hazards I have been discussing in their own environment.

Take accidents due to falls from windows. What a simple matter it is to avoid placing a chair or couch near a window where a child can easily climb up and perhaps fall out of the window. Windows should have bars or stout, firmly-secured screens. Sometimes, as you know, a child leans against a screen, and, if it is not secure, out he goes through the window. Protection

against falling downstairs is also important. In a home where there are very young children, a gate at the top and at the bottom of the stairs is a good safeguard, if every member of the family fastens it when going up or down the stairs. This will save many headlong tumbles that might prove fatal.

Because of a child's natural tendency to investigate (a trait which should be encouraged in the *right* direction) all adults should be careful to place out of reach bottles and jars that contain medicines (even aspirin), kerosene and fuel oils, oil of wintergreen—in fact, anything which is not actually edible. All of these things look harmless, even interesting, to children, but they have caused death in many cases. And as to household disinfectants, cleaning powders, germicides, lye, rodent powders, perhaps every one of us today would have to answer "yes" to the question, "Do you store any of these things where they are accessible to children?" Invariably they are placed on a low shelf near the kitchen sink, handy for the housewife, perhaps, but within easy reach of young children.

And so it goes; we could go down through the list and figure out ways of eliminating hazardous conditions that take a high toll of lives among our children—easy, simple, inexpensive ways for the most part. The least we can do is to accident-proof our own homes. Just as we clean to keep out dirt, moths, and rodents, so must we eliminate thoroughly, and at once, all of the traps that could cause disaster to our children or, for that matter, to ourselves.

Unsafe practices are not always the result of carelessness. Often they are due to the lack of cooperation on the part of the family in methods of doing things. Nagging never has been known to bring good results. Instead, it should be emphasized that safe practices are a matter of good training and good example.

Teaching children the safe and correct way to do things and always giving them a good example is the best way to build safe habits. Take the use of matches: Matches should be kept entirely out of the reach of infants and young children still in the "mouth" stage. Older children who will get hold of them no matter what is done should be taught how and when to use them.

Striking a match outdoors, under the supervision of an adult, in order to burn rubbish in a wire container can be made a constructive experience for a child and will help to satisfy his natural curiosity about this magic business of flame. Lighting candles is another example of how to show a child that there is a way and a time (and interesting ones at that) to perform such functions. By learning the normal use of matches and being allowed to use them under supervision he will have less desire to play with them surreptitiously.

Emotional Factors

There are other factors involved in happy and safe family living that are not as tangible as those just mentioned. What about some of those subtle causes of accidents to our children such as emotional upsets—fears, and the like?

It is recognized today that personality factors play a very important part in accident proneness among adults. There is evidence now to indicate that emotions may play a direct role in repeated accidents among children, too.

Other cases of accident proneness, however, are due to physical defects which have not been discovered or corrected. One child, for instance, who was continually falling was found to have a lagging toe muscle—the result of a previous illness.

Every adult has a role to play in identifying the causes of accidents to children and in trying to remove them. Safety education can often be tactfully made a part of regular child care. It is perfectly natural, for example, to point out even to the young child the importance of picking up toys or other obstructions on stairs or floors which might cause a serious fall if they are left lying about. Perhaps you can say to the child, "They will last longer if they are put in a place of their own, and no one knows the right sort of spot for them better than you do. See if you can find a nice place for them."

Questions

Now with this background of general information, here are a few questions we can use to test ourselves on our role in child safety:

1. What can be done to decrease automobile accidents among children, especially those which might occur in the front of the house or in the driveway?

2. Where should matches and flammable liquids be placed and why?

3. What simple arrangement can be made to prevent falls (a) from windows, (b) on stairs?

4. What objects and household commodities are unsafe to store within the reach of children?

5. What are some of the safety features in toys to be noted when making a purchase?

6. Is there any connection between tension, fear, temper tantrums, and frequent accidents?

7. What is the value of a child's tendency to imitate? How can it be used to teach him safety?

8. Are your own attitudes of significance to the safe conditions of your home?

9. Is a household with a happy, well-organized family likely to produce safe living?

10. Are there any household tasks which can be done together—say with a mother and a child of 4 years?

not recd.

—Firestone News Service

Cigarettes and matches have an attraction for children. Watch to see that all cigarettes are extinguished and that matches are out of reach.

1957 Congress, Wallet-Card

—National Safety Council

M. Frances DeVine, Northwestern Bell Telephone Co., shows audience at a Home Safety Session of the 45th National Safety Congress a sweat shirt given her by employees of the company.

WE[1] ARE HERE because we are keenly aware of what safety means to people and what people mean to industry—people alive, healthy, and whole. There is nothing more important in the whole world. People mean life. Abraham Lincoln made the statement that next to creating a life, the greatest thing a man can do is save a life. We are interested in this since we are vitally concerned with the number of bodies being needlessly dismembered and disabled and the lives lost due to the lack of realization of the dividends of safe living.

How can industry go about getting more and more people imbued with the knowledge of living safely no matter where they are or what they are doing? Industry has accomplished a great deal in promoting safety on-the-job. Of recent years many industries have expanded these activities to safety off-the-job, many with special emphasis on home safety. The Northwestern Bell Telephone Company, the same as all Bell system companies, has had active on-the-job safety education for many years with splendid results, results that have earned the National Safety Council Award of Honor 5 out of the last 6 years. Telephone work is safe and is becoming more safe as time goes by. That is fine, and we are proud of it, but how much of this is being carried away from work?

Our company, like all Bell system companies, took a searching look at off duty lost time injuries 3 years ago, and we were amazed at what we saw. Our off duty injuries far surpassed those on duty. We were alerted to the urgent need to expand our program for preventing off duty injuries. It was realized, too, that this problem is far-reaching; it involves not only our employees but their families who have a vital stake in it too.

The next question is "How does industry approach a problem such as this?" This is a challenge, indeed; off duty safety promotion requires a different approach from on-the-job. To be of assistance when needed is a basic characteristic of human nature. We knew if our people were informed of the problem and if their participation was enlisted to help prevent painful injuries, we would get some effective action.

How were we going to reach the 7,000 people we have in the Iowa Area? We have offices of varying sizes in many locations. On-the-job safety education is to a great extent departmentalized, but off-the-job safety lends itself better to an interdepartmental setup, in all locations.

Number one in importance is effective communications from one location to another. These brought about a program for a multilocation operation by the expansion of existing safety committees and organization of additional ones such as:

1. Area Interdepartmental Safety Committee, Iowa Area Headquarters, which expanded activities to off-the-job promotion.

2. District Interdepartmental Committees organized in each of the eight districts, and

3. Local Interdepartmental Committees in most of the 64 exchanges in Iowa.

The program had to be such that it would be adaptable to all loca-

[1]These comments, "Flexibility and Feedback—Programming for a Multilocation Operation," were presented October 24, 1957, by Miss DeVine at a Symposium "Industrial Approaches to Home Safety" at a Home Safety Session of the 45th National Safety Congress in Chicago, Ill.

FLEXIBILITY AND FEEDBACK

Programming for a Multilocation Operation

By M. Frances DeVine
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Iowa Area Traffic Dept.
Northwestern Bell Telephone Co.
Des Moines, Iowa

tions. What sort of information should be used in an effort to get the message to all these people? Every person is different from every other in background, motivation, previous experience, and viewpoint. The information should be such that it would reach not only each force group but each individual.

Ralph Waldo Emerson made the statement, "Only so much do I know as I have lived." People should not have to experience injuries to learn to live safely. Our objective is to generate sufficient interest and participation to get our people to think of their own responsibility in the prevention of injuries to themselves and others and then to act. To do this would require a program flexible in all phases with many different approaches and ideas. What will interest and appeal to one will have no effect on another. Our objective could be accomplished if enough interest were sparked to get each location actively engaged in formulating ideas of their own.

Initially the material used to generate this interest was referred from the Area to the District Committee and from there to the local committees. After the interest was once stimulated and the various committees became actively engaged in producing ideas and material of their own, a feedback of what was being done and how it was being done was necessary. It was valuable information to be passed on for use elsewhere and also for appraising results. This required sustained interest and effective communication at all points in our multilocation setup, from our top executive through all lines of organization—the better the communication, the better the feedback.

To stimulate action and effective communications through all lines of the organization, a letter signed by our department heads containing comparative figures of on- and off-the-job injuries was forwarded to 32 district heads in our 8 districts. The letter emphasized that knowing what the situation actually was should stimulate their thinking and lead to corrective measures.

To assist them and their safety committees, printed matter and visual aid material would be sent to the District Interdepartmental Committees from time to time for distribution to all employees in their exchanges; also, the Area Interdepartmental Committee was available to assist in the organization of District Interdepartmental Committees where they did not exist and to support those committees already in action. The Area Group encouraged reporting of the programs set up in each district to bring about a reduction in the number of off-the-job injuries.

District Interdepartmental Committees were organized, and the names of the chairman and members, sent to the Area Committee. The committee chairmanship is rotated in some locations. A good many of the existing departmental committees in the local exchanges were expanded to interdepartmental membership. The committee membership in the local exchanges is on a rotating basis. This helps not only to reach and interest each individual but also to stimulate the flow of ideas and suggestions emanating from the group. Their meetings are held on a monthly basis during working hours.

The following is some of the material initially forwarded (and some of it on a continuing basis) by the Area Committee to the District Committees for their review and distribution to local exchanges to help stimulate interest and participation:

1. *Living Safely Off-the-Job,* prepared quarterly.
2. Summary of off-the-job employee lost time injuries.
3. *What's the Answer?* booklet about child accidents, also sample of universal antidote for poisons.
4. Copies of material from Home Safety News Service (N.S.C.) and subscriptions for this service for each district head.
5. *Industrial Supervisor,* a N.S.C. publication.
6. District chairman placed on mailing list for *Targets for Home Safety* and *Targets for Traffic Safety,* N.S.C., also on mailing list of Iowa State Dept. of Pub. Safety.
7. Promotional material in regard to national campaign for traffic safety and campaign to prevent falls.
8. Minutes of Area Interdepartmental Safety Committee meetings, supervisors informed of problem and

expansion of activity to prevent off-the-job injuries.

9. Bell System booklet, *Safety in the Bell System,* pertaining to both on- and off-the-job injuries.

10. Safety buttons for Safety Committee members.

11. Safety films suggested.

It wasn't too long before we started getting "a take" so to speak. The district and local committees, not dependent entirely on the Area Committee for material, began originating ideas of their own and securing material from other sources. The following is some of the feedback we have been receiving from them:

1. Employee made posters, poster contests.

2. Join the crusade against home accident prevention.

3. *Could This Be You or Yours?,* for posting.

4. Newspaper clippings submitted by employees.

5. Rickard's method of artificial respiration for children under two years of age reproduced from Home Safety News Service and mailed to all employees' homes.[2]

6. Danger of using carbon tetrachloride, reproduced from Home Safety News Service, also mailed to employees' homes.[3]

7. *Let's Make April Fall Free.*

8. Bulletin on safely cleaning yards.

9. *Open Season Booklet—Outdoor Activities.*

10. Safety Slogan Contest.

11. First Aid Training.

12. Home Safety Displays.

13. First Aid Charts.

14. Safety Jingles, act demonstrating various kinds of injuries put on from wheelchair.

15. Article on power lawn mowers.

16. The Road Ahead, As You See It.

17. Various pamphlets from the National Safety Council: *Your 10,000 Mile Living Room, Take It Home with You, Dennis the Menace: On Safety,* and many others.

We knew there was a great deal going on in various locations, but it wasn't until all this information was compiled to be included in the National Safety Council's 1956 Home Safety Inventory that we saw it all together. We were surprised and immensely pleased at how much was and still is actually being done through employee participation.

How has this affected results?

As can be noted from the results, the first 6 months of 1957 there were 10 less cases and 437 less days and no fatalities. It should be mentioned also that safety activities are more far reaching than we know. There are others such as family members, friends, and neighbors who no doubt have also been saved from injuries. For instance, we know of one case, the son of one of the employees, who used the Rickard method of artificial respiration on his 6-day-old baby and feels this was responsible for saving the child's life. These results are immensely encouraging and satisfying to all who have helped promote safe living. It makes us realize even more the big job to be done. All of this may give you the impression that programming for a multilocation safety operation is fairly simple and easy, but it isn't. It can present some real difficulties. We have encountered some barriers to a successful safety operation. You might be interested in what some of these are:

1. Sustaining interest at the area, district, and local levels.

2. Breakdown in communications.

3. Failure to plan ahead.

4. Failure to follow through.

5. Recognition, insufficient or none.

6. Effective distribution of material.

Constant attention to any of these barriers is essential to a continuous safety program. Promoting safety, especially off-the-job, requires time, patience, and persistence. The reason is that we are dealing with people and the habits of people, and all of us know some people are more adaptable to changing habits than others. How does industry approach the problem of educating people to be safe at all times?

1. By employee participation. People who work on safety become safety conscious.

2. By effective communications, two-way, through all lines of organization.

3. By recognition for participation, results, interest, etc.

4. By flexibility, throughout, to reach all people.

5. By a feedback of what is being done which will in turn strengthen and reinforce the entire program.

When this program is actively under way, an ever increasing circle of employees, their families, their friends, and their neighbors are working and living more safely and spreading the message of safety. Every action we take in support of such a program has its compensating effect somewhere, on someone. It can truly become a crusade for safe living!

Comparative results
First 6 months 1956 and 1957
Off the Job Lost Time Injuries

1956		1957	
No. of Cases	**Days Lost**	**No. of Cases**	**Days Lost**
83	1,138	73	699
1 Fatal Auto Accident		*0 Fatal Auto Accidents*	
Two Major and Most Serious Causes		**Two Major and Most Serious Causes**	
Falls 36	623	Falls 33	317
Auto 17	319	Auto 21	282

Approximately 50 per cent of the accidents occurred in the home.

[2] "New Method of Artificial Respiration," P. A. Marsteller, *Home Safety Review,* vol. 14, No. 2, pp. 24-25, February 1957.

[3] "First-Class Killer—Carbon Tetrachloride," Louis W. Spolyar, M.D., *Home Safety Review,* vol. 14, No. 2, p. 27, February 1957.

CARBON TETRACHLORIDE

What the American Standard Acceptable Concentration Means to You

By W. F. von Oettingen, M.D., Ph.D.

MANY[1] PEOPLE ARE aware in a rather vague way that carbon tetrachloride is a toxic material but are unable to appraise its toxicity because of inadequate information. The *American Standard on Maximum Acceptable Concentration of Carbon Tetrachloride, Z37.17-1957,* is a timely and much needed publication that properly fills this gap. Large volumes of carbon tetrachloride are used as solvent, as a dry cleaning agent, and in fire extinguishers, and its use has often given rise to severe and even fatal poisoning. The purpose of the American Standard is to serve as a guide for manufacturers, consumers, and the general public for the safe handling of the solvent.

Committee Z37 of the American Standards Association has studied for many years the existing experimental and clinical information published in the world literature on the toxicity of carbon tetrachloride, as well as other evidence of its injurious action observed in industrial operations where it is handled. After careful scrutiny of all available information the committee proposed that the maximum acceptable concentration should be "25 parts of carbon tetrachloride per 1,000,000 parts of air, corresponding to 0.157 mg per liter at 25 C and 760 mm Hg, for exposures not exceeding 8 hours daily, with the understanding that variations should fluctuate around 10 parts per million." The committee's proposal was subsequently approved by ASA as American Standard.

The value of 25 parts per million means that in a room of 10 x 12 x 16 feet dimensions or 1920 cubic feet capacity and without ventilation this limit would be produced by the evaporation of only one half of one ounce of carbon tetrachloride.

This low value illustrates the great hazards involved in the handling of carbon tetrachloride if proper precautions are not observed. Whereas the large industries are generally aware of these dangers and control them by proper ventilation and other precautionary measures, the small operators and the general public all too often do not realize the dangers connected with the use of this solvent.

As pointed out in American Standard Z37.17-1957, inhalation of the vapors of carbon tetrachloride and of solvents containing it may lead to acute illness, characterized by sleepiness, headache, nausea, vomiting, and narcosis. It may also result in prolonged illness due to liver and kidney injury and their consequences; and even to death from paralysis of the brain or irreparable injury and failure of the organs mentioned.

Up to this time no reliable information has been available as to the maximum acceptable concentration of carbon tetrachloride in the inhaled air that should be considered safe for most persons. It is only with the development of this standard that such a reliable figure is available.

Even this low figure as explained above does not fully indicate the severity of the actual exposure to carbon tetrachloride. Close to the site of the application of the solvent, as during the removal of spots from garments or paint from floors, much higher concentrations than in the general atmosphere will be encountered at the breathing level of persons engaged in these tasks, so that the evaporation of much smaller quantities than one half of one ounce will result in harmful and even dangerous concentrations. Since the vapors of carbon tetrachloride are much heavier than air, they are not uniformly distributed in the atmosphere but have the tendency to accumulate at lower levels and especially in pits. It is therefore evident that carbon tetrachloride should never be used without adequate ventilation, and that, in the absence of a proper exhaust system, this should be provided by opening win-

[1] "Carbon Tetrachloride" by W. F. von Oettingen, M.D., Ph.D., has been reprinted from the *Magazine of Standards*, vol. 28, No. 8, pp. 261-262, September 1957, published by the American Standards Association, Inc., New York, N. Y.

dows and doors whenever carbon tetrachloride is used.

One of the advantages of the use of carbon tetrachloride as solvent and dry cleaning agent is its nonflammability. While this is true, it is often not recognized that the contact of its vapors with an open flame or a hot object, as a hot electric heating plate or an electric short circuit, will result in the formation of phosgene, chlorine, and hydrochloric acid vapors, the two latter being highly irritant substances. This danger is also pointed out in American Standard Z37.17-1957. The formation of phosgene is especially fraught with danger. Whereas hydrochloric acid and chlorine are irritant gases and therefore may act as warning signals, phosgene may produce severe injury of the lungs even in concentrations which produce no marked irritation of the mucous membranes. The development of such pulmonary injury is insidious, always dangerous, and often fatal. For this reason carbon tetrachloride should never be used where contact with an open flame or glowing metal is possible.

The text of the standard mentions also another generally unknown or unappreciated fact, namely, that the ingestion of even small quantities of alcohol tremendously increases the toxicity of carbon tetrachloride. For this reason it is of paramount importance that no alcoholic beverages are ingested prior or during the handling of carbon tetrachloride.

It is also pointed out that the intimate contact of carbon tetrachloride with the human skin will cause irritation and, because of its solvent qualities for the protective fats of the skin, this will cause chapping and a predisposition to secondary infections of the skin.

Finally it is pointed out that the ingestion of carbon tetrachloride has repeatedly given rise to severe and fatal poisoning. For this reason carbon tetrachloride should not be kept in bottles usually used for beverages and, in any case, containers holding carbon tetrachloride should be labeled properly, so that no mistake is possible, and should be stored out of the reach of children.

Further, American Standard Z37.17-1957 lists also the physical-chemical data of carbon tetrachloride and gives directions as to the sampling procedure and analytical methods for determining its concentration in air. The standard is annotated with a bibliography which permits the finding of more detailed information.

In summary, it may be stated that the *American Standard on Maximum Acceptable Concentration of Carbon Tetrachloride* not only gives the concentration of this material in air, that should not be exceeded, but it also supplies much additional information that is essential for the appreciation of the dangers connected with its use and safe handling. For these reasons it is desirable that this standard should find the widest distribution, and it is hoped that the dissemination of such knowledge will be instrumental in reducing the incidence of carbon tetrachloride poisoning.

DR. VON OETTINGEN was chairman of the subcommittee that did the preliminary work to determine the acceptable concentration of carbon tetrachloride for approval as American Standard. He is with the Laboratory of Pharmacology and Toxicology, National Institute of Arthritis and Metabolic Diseases, National Institutes of Health, U. S. Public Health Service, Department of Health, Education, and Welfare, Bethesda, Md. The U. S. Public Health Service acted as Endorsing Sponsor for the standard and recommended its approval. Although the standard is primarily intended for use in industry as a guide for industrial exposures to workmen, the committee's studies and recommendations are also important to the general public, Dr. von Oettingen points out.

The '57 Accident Story

THE HOME ACCIDENT death total in 1957 in the United States was approximately 27,500, about 500 below that of 1956, the National Safety Council estimates. This is 29 percent of the total of 95,000 fatalities from accidents.

Disabling injuries from home accidents numbered 4,100,000, or 43 percent of the total of 9,500,000.

Home accident wage losses, medical expenses, and the overhead costs of insurance totaled about $850,000,000. The total estimated economic loss for all accidents was $11,800,000,000 (including wage loss, medical expense, and the overhead costs of insurance, production delays, damage to equipment in work accidents, and property damage from traffic accidents and fires).

Although there was little change in the death toll for all accidents in 1957 (95,000 in 1957, 94,780 in 1956) the death rate per 100,000 population was 55.8—the lowest rate on record.

There were approximately 18,000 deaths in public non-motor-vehicle accidents during 1957, or 2,000 more than occurred in 1956. Drownings and falls each resulted in one-fourth of the deaths. Transportation accidents (rail, air, water, and other —not involving motor-vehicles) accounted for about one-fifth. All other types contributed about one-third of the death total.

Persons 65 years and older accounted for nearly one-third of the public non-motor-vehicle deaths; 25-44 and 45-64 each nearly one-fifth; 15-24 almost one-seventh; 5-14 one-eighth; children under 5 fewer than one-tenth.

THE NATIONAL ACCIDENT FATALITY TOLL

	1957	1956	Change
ALL ACCIDENTS	95,000	94,780	0%
Motor-vehicle	38,500	39,628	— 3%
Public non-motor-vehicle	18,000	16,000	+13%
Home	27,500	28,000	— 2%
Work	14,200	14,300	— 1%

(Note: The motor-vehicle totals include some deaths also included in the work and home totals. This duplication amounted to about 3,300 in 1956 and 3,200 in 1957. The 1956 all-accident and motor-vehicle death totals are the official figures of the National Office of Vital Statistics. All others are National Safety Council estimates.)

not rec'd.

Michigan State Police Commissioner Joseph A. Childs (left) accepts a donation of Emergency Poison Antidote Kits from Robert H. Trimby, M.D., of the Michigan State Medical Society.

Antidote Kits Given to Michigan Police

THE MICHIGAN State Medical Society today presented the Michigan State Police with Emergency Poison Antidote Kits for all of their posts throughout the state to meet accidental poisoning emergencies.

The kits were presented to State Police Commissioner Joseph A. Childs in his Lansing office, January 16, 1958, by Robert H. Trimby, M.D., chairman of the Accident and Poison Control Subcommittee of the Michigan State Medical Society's Child Welfare Committee.

"It's incredible how frequently youngsters manage to swallow something they shouldn't, often because parents have carelessly left medicine bottles, paints, cleansers, insecticides, and the like, within easy reach," said Dr. Trimby.

"Now, upon a physician's request [pending his arrival] the Michigan State Police will be able to administer first aid in such cases, thanks to these kits which carry emergency antidotes for almost every kind of poison. It's an established fact that immediate treatment of poison victims can well be the difference between life and death."

Television Sets Need Grounding, Too!

THE FATALITY that occurred in the Chicago area when a very young boy was shocked by a television set serves to reemphasize the need for grounding electric apparatus. The investigating jury of electric experts included the following in its statement to the coroner of Cook County, Illinois:

"Since many kinds of portable electrical appliances are being used in the American home in ever increasing numbers, and since many new types of portable appliances are marketed, it is highly desirable that safety codes and practices used by industry be strengthened.

"As far as shocks are concerned, certain locations in the home are more hazardous than others, namely the kitchen, bathroom, laundry, basement, and utility room. Any room in which grounded objects, such as water or gas pipes, are located, makes possible a low resistance return path for electric current."

The ideas in this report are not new, for the National Safety Council for years has been stressing the importance of grounding of portable electric tools and equipment for the very same purpose. If a defect does occur within the electric equipment and should short to the metal shell or case, then the ground wire would drain the charge and act as a protective device.

Television sets in metal cabinets possess some of the same hazards apparent in portable tools. Moreover, they are placed in yards with wet grass, at the edge of swimming pools, in damp basements and wet garages, etc. In other words, the sets are being used in hazardous areas, and safe practices are not considered too often.

The same considerations and requirements which apply to electric equipment and portable tools should be followed for television sets and portable home appliances. A ground wire should be established. This can be by use of a three-conductor cord containing a separate ground wire and a matching plug and receptacle. Grounding can also be accomplished by use of a separate ground wire attached to the metal cabinet, case, or housing with the other end fastened to a water pipe or established ground connection.

This fatality happened to be caused by a television set. It could have been a portable mixing unit in a kitchen, an electric iron, electric toaster, or other defective appliance that produced the same results. All such equipment, to be safe, should be equipped with the proper grounding device.

HOW GOOD A JOB

(from page 3)

(4) school sponsored youth groups concerned with the subject.

Business and industries will be queried concerning: (1) records and statistics concerned with off-the-job home accidents, (2) types of organizations with which they cooperate in their off-the-job safety activities,

and (3) types of activities involved in their off-the-job safety program.

The questionnaire for *hospitals* will include: (1) possible home safety injury surveys, (2) average length of stay for accident victims, (3) educational activities, and (4) building safety features.

Local *building departments* will receive questionnaires inquiring as to: (1) the local building, fire, and housing codes, (2) occupancy inspections and penalties involved, (3) cooperating agencies, and (4) research and engineering activities conducted by the department.

Local fire departments will be asked for information regarding: (1) organizational structure, (2) local fire codes and standards, (3) home fire prevention activities, (4) research studies and their use, and (5) local home fire statistics.

The *professional and trade association* questionnaire will include questions on: (1) special aspects of home safety of concern to the particular organization, (2) methods and techniques most frequently used, (3) audience groups contacted, and (4) the extent of communitywide home safety participation.

Local voluntary organizations will be asked similar questions on a separate form.

The questionnaire for *local safety councils* will consist of two major sections. One section will attempt to summarize the entire home safety "picture" in the community; the other will request information on the home safety activities and services of the safety council itself. The latter section will include questions on: (1) home safety committee structure and operations, (2) mass media utilization, and (3) special home safety surveys or studies conducted in the community.

Admittedly, the preceding gives only the major areas of concern for each of the organizations to be contacted by the local centers. The Home Safety Division will be happy to send a set of mimeographed sample copies of each of the tentative forms to any Inventory center director requesting one.

The final printed packets of forms will be sent to local Inventory centers on or before September 10, 1958, according to a timetable approved by the Inventory Committee. The completed forms are to be returned to the Home Safety Division office by January 31, 1959.

Detailed instructions regarding the conduct of the Inventory on the local level will be included in the packets of questionnaires. Home Safety Division staff members will also be contacting many of the local Inventory directors personally within the next few months in order to assist on working out any problems regarding the Home Safety Inventory peculiar to a particular community. Information of special interest to state Inventory directors will be contained in the next issue of this publication. Future issues of the *Home Safety Review*, and other National Safety Council publications, will contain additional articles and announcements regarding procedural details of this project. We trust you will alert yourself to these.

As has been stated many times previously, the main purpose of this "home safety tool" is to assist those on the local and state level who are responsible for home safety programming to evaluate what they have already accomplished and to aid them in doing a better job in the future. Only by cooperating in the Inventory to the greatest extent possible can community agencies hope to profit from it. Thus, we urge and invite your participation in the 1958 Home Safety Inventory.

Study Poisoning Cases in Louisville

IN LOUISVILLE, KY., in 1955 there were more cases of accidental ingestion of cleaning agents, such as bleach and furniture polish (26 out of 100 cases studied), than from ingestion of other types of poisonous substances, according to the Louisville Poisoning Control Center. Further details are given below in a review reprinted below from the *Journal of the American Medical Association* for July 20, 1957, of a report, "Factors Associated with Accidental Poisoning of Children: A Progress Report from the Louisville Poisoning Control Program," by E. E. Taylor and W. C. Adams. *South. M. J.* 50: 447-452 (April) 1957 [Birmingham, Ala.]

"One hundred cases of accidental ingestion of poisons by children were investiagted during 1955 by the Louisville Poisoning Control Center. Medications, such as salicylates and laxatives, were the poisonous agents in 22 cases; cleaning agents, such as bleach and furniture polish, in 26, rodenticides and insecticides in 19; petroleum distillates, such as kerosene and fuel oil, in 22; painting supplies in 6; and miscellaneous in 3; while the poisonous agents were unknown in 2. Altogether, 28 different agents were involved in the 100 cases. Factors that appeared to have contributed to the occurrence of poisoning included permanent location of the agent in an accessible place; the agent being obtained while being used by another person; the agent being used and then left in an accessible place, rather than returned to its permanent location; the agent being a pesticide used on the floor; the agent having no warning label; the agent being removed from its original container and placed in a container that could be easily handled by a child and would likely be associated with eating or drinking; the actions of an older child contributing to the accident; and the victim being away from his home environment. Of the 100 children, 85 were under the supervision of a parent at the time of the accident, but in 41 cases the parent and child were not in the same room. Seventy-five children were 2 or 3 years old. This striking age distribution should make it possible to achieve control of accidental poisoning. Such accidents can largely be prevented if, for a rather brief period in a child's life, he or she is isolated from poisons. Anticipatory guidance of parents by physicians and nurses is recommended."

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